

PRELIMINARY ASSESSMENT

of

NORANDAL USA, INC.

(ARD006351464)

Prepared By

Trudy Tannen, FIT Chemical Engineer

**ICF Technology, Inc.
Region VI**

August 21, 1990

9679416



**PRELIMINARY ASSESSMENT
of
NORANDAL USA, INC. NEWPORT PLANT**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1. SITE INFORMATION	1
1.1 SITE LOCATION	1
1.2 SITE BACKGROUND	1
2. BACKGROUND AND OPERATING HISTORY	1
2.1 SITE HISTORY	1
2.2 KNOWN AND POTENTIAL PROBLEMS	2
2.3 REGULATORY INVOLVEMENT	2
3. WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION	2
3.1 DOCUMENTATION	3
3.2 WASTE GENERATION	3
3.3 CONTAINMENT	3
4. PATHWAY CHARACTERISTICS	3
4.1 GROUND WATER	3
4.2 SURFACE WATER	4
4.3 SOIL EXPOSURE	5
4.4 AIR	5
4.5 GROUND WATER RELEASE TO SURFACE WATER	5
5. TARGETS	6
5.1 GROUND WATER	6
5.2 SURFACE WATER	6
5.3 SOIL EXPOSURE	6
5.4 AIR	6
6. CONCLUSIONS	7
REFERENCES	R-1

FIGURES

<u>FIGURE</u>	<u>TITLE</u>
1	SITE LOCATION MAP
2	SITE SKETCH

TABLES

TABLE

TITLE

1

ANNUAL CONSUMPTION OF ROLLING OIL, SOLVENTS AND COATINGS
NORANDAL USA, INC. NEWPORT PLANT
1989

ATTACHMENTS

ATTACHMENTS

TITLE

A

SOLID WASTE MANAGEMENT UNITS`

1. SITE INFORMATION

The Region VI Field Investigation Team (FIT) was tasked by the U.S. Environmental Protection Agency (EPA) under Technical Directive Document (TDD) F-06-9005-15 to conduct the Preliminary Assessment (PA) of Norandal USA, Inc. Newport Plant in Newport, Jackson County, Arkansas.

1.1 SITE LOCATION

The Norandal USA, Inc. Newport Plant is located 4.25 miles from the western edge of Newport Lake, on the east side of U. S. Highway 67 (Highway 67 North, Newport, Arkansas 72112; telephone 501-523-2771). The geographical coordinates are 35°38'45" north latitude and 91°15'10" west longitude (Figure 1).

1.2 SITE BACKGROUND

Norandal USA, Inc. owns the facility. Annual sales total \$423 million for 1989. Norandal USA, Inc. is a subsidiary of Norandal Aluminum, Inc. (annual sales \$600 million), a subsidiary of the Norandal Corporation. Norandal Corporation has an annual sales figure of \$1,300 million (Ref 1, p 3101)

2. BACKGROUND AND OPERATING HISTORY

This section addresses site history and operations, known and potential problems and regulatory involvement of federal, state or local agencies.

2.1 SITE HISTORY

The Newport plant was established in January 1952 by Revere Copper and Brass Inc., a manufacturer of cookware and kitchen utensils (Ref. 2, p. 1). In November 1980, Revere submitted Part A of the EPA Hazardous Waste Permit Application (Ref. 2). Revere used the plant for aluminum rolling and laminating (Ref. 2). The EPA granted interim status to Revere in April 1982 (Ref. 3).

During its period of ownership, Revere published an in-house Hazardous Waste Storage Operating and Training Manual. The manual listed the chemical wastes generated by the facility and described procedures for spill detections, hazard monitoring and the safe loading and unloading of chemicals (Ref. 4, Sec. 2, Sec. 4). The manual referred to the 8 underground storage tanks (USTs), with a total capacity of 80,000 gallons, and the on-site mobile storage tanks (Ref. 4, Sec. 4)

National Aluminum Corporation purchased the facility on November 19, 1986. The purchase agreement stated that Revere would assume responsibility for environmental liabilities (Ref. 5)

On December 11, 1989, Norandal USA, Inc purchased the facility (Ref. 6) Norandal manufactures welded aluminum tubes, aluminum strips, sheets and foil (SIC code 3353) (Ref. 1, p. 3101)

2.2 KNOWN AND POTENTIAL PROBLEMS

The Norandal plant uses the solvents methyl ethyl ketone, isopropyl alcohol and ethanol and rolling oil (Ref. 7). The rolling oil contains Norpar 12, kerosene, mineral spirits and BA-41/BT-45 (Table 1) (Ref. 7). The plant also uses coating material of undetermined composition.

The 8 on-site underground storage tanks have a total capacity of 80,000 gallons. An undetermined number of mobile storage tanks are also located on-site (Ref. 4, Sec. 4). An EPA inspection report described two 1,000 gallon mobile storage tanks (Ref. 8). The Part A EPA Hazardous Waste Permit Application filed by Revere listed 10,000 gallons of tank storage (Ref. 2, p. 1). Therefore, the site may have as many as 10 mobile storage tanks. In addition to the underground and mobile storage tanks, the permit application referred to 1,000 gallons of drum storage (Ref. 2, p. 1). All of the storage units have a potential to release to the environment, and, in the case of the USTs, the piping system could release hazardous chemicals as well. The inspection report from the EPA Surveillance Department also referred to a depression into which dirt and solids that have been removed from the waste oil are placed (Ref. 8). The report stated that neither the oil or these solids have been tested for hazardous characteristics (Ref. 8). The solids may pose an additional hazard. Information regarding the continued use of these units by Norandal was not available.

An off-site reconnaissance was not conducted by the FIT. The EPA RCRA file and the ADPCE file for the site were used to complete this report.

2.3 REGULATORY INVOLVEMENT

Revere submitted Part A of the EPA Hazardous Waste Application in November 1980 (Ref. 2). The EPA granted interim status in April 1983 (Ref. 3).

On February 7, 1983, the EPA Surveillance Branch inspected the site and did not find evidence of violation (Ref. 8).

In May 1983, Revere sought to withdraw its application because the wastes were stored for less than 90 days (Ref. 9). The State of Arkansas approved the withdrawal of the permit and the site status was changed to generator (Ref. 10).

On July 10, 1989 and March 14, 1990, the State of Arkansas Department of Pollution Control and Ecology (ADPCE) inspected the site and did not find evidence of violation (Ref. 11; Ref. 12).

3. WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION

Documentation, waste generation and containment are addressed in this section

TABLE 1

**ANNUAL CONSUMPTION OF ROLLING OIL, SOLVENTS AND COATINGS
NORANDAL USA, INC. NEWPORT PLANT
1989**

ROLLING OIL

Norpar 12	953.69 Tons/Yr.
Kerosene	498.11 Tons/Yr.
Mineral Spirits	612.57 Tons/Yr.
BA-41/BT-45	86.48 Tons/Yr.
Total	2141.85 Tons/Yr.

SOLVENTS AND COATINGS

Dilutant Solvents	
Methyl Ethyl Ketone	68,214 Gal.
Isopropyl Alcohol	30,507 Gal.
Ethanol	67,068 Gal.
Coating	88,654 Gal.
Total	254,443 Gal

3.1 DOCUMENTATION

Norandal operates under ADPCE permit 907-AR-1 (CSN:340010) (Ref. 7). The permit requires Norandal to report the plant's annual usage of rolling oil, solvents and coatings (Table 1) (Ref. 7).

The National Aluminum Corporation reported an annual maximum usage of 297,000 gallons of solvents, 92,000 gallons of coatings, and 3,400 tons of rolling oil by the plant (Ref. 11). Norandal reported that the solvents used are methyl ethyl ketone, isopropyl alcohol and ethanol. The rolling oil contains Norpar 12, kerosene and mineral spirits (Table 1) (Ref. 7). The composition of the coating material was not identified.

Revere stated in its manual that records of inspections and other check systems for hazardous releases would be maintained for 3 years (Ref. 4, Sec. 4). Norandal keeps records on control equipment maintenance (Ref. 12), but the current information does not detail the nature of the records or the retention time.

3.2 WASTE GENERATION

The 4 on-site Solid Waste Management Units (SWMUs) are described in Attachment A.

3.3 CONTAINMENT

Waste containment for the 4 on-site SWMUs is described in Attachment A.

4. PATHWAY CHARACTERISTICS

This section characterizes environmental pathways and evaluates the potential of contaminant migration from the facility

4.1 GROUND WATER

The Mississippi River Valley Alluvial Aquifer supplies the ground water for Newport and most of Jackson County (Ref. 13, pp. 2-3). Water levels range from 10 to 30 feet below the surface (average 20 feet). Central Jackson County lies over a division in the flow of the aquifer. Ground water in the aquifer flows either southwest to the White River or southeast to discharge points outside of the county (Ref. 14, p. G8). Since the site is in west Jackson County, ground water flows southwest in this area of the aquifer

Ground water is used for residential, commercial and industrial purposes (Ref. 15). Crops are irrigated with ground water in Jackson County, but there is little agricultural work in the Newport area (Ref. 15; Ref. 16). The amount of land used for agriculture could not be determined. Typical crops for the county include soybeans, rice, corn, wheat and sorghum (Ref. 15). The City of Newport obtains its water supply from 5 wells in Newport and supplies water to Diaz and Jacksonport (Ref. 17). The nearest well to the site is probably the Holden-Connor Farms well (Ref. 15). The distance from the site to this well was not determined. The land altitude at the farm is 240 feet above sea level

and the water level is approximately 226 feet above sea level (Ref. 13, p. 17).

The site is situated on Bosket undulating fine sandy loam. This type of soil has a moderate permeability and water capacity. Water and wind erosion are moderate hazards for this type of soil (Ref. 18, p. 11 and sheet 19).

4.2 SURFACE WATER

Surface water from the site may migrate overland east to Village Creek, south to an intermittent stream, or west to any one of 3 branches of an intermittent stream. All 3 paths eventually feed into White River (Ref. 19).

Surface water overland migration to Village Creek would enter the creek system about 1.5 miles east of the site. After 12 miles, Village Creek flows into White River, south of the Slaughter Pen Slough area (Ref. 19; Ref. 20).

The intermittent stream south of the site is approximately 0.3 of a mile from the plant. The 3 branches of the intermittent stream west of the site are between 0.7 and 1 mile away. The single-branch stream flows south until it passes Diaz, where it is diverted west. West of Diaz, it empties into the southward flowing 3 branch stream. The water from the streams may reach White River through a series of marshes, ponds and streams, or the water may flow through a stream for 3 miles into Newport Lake. A stream flowing south out of the lake leads to Village Creek, 2 miles from the lake, which empties into White River (Ref. 19).

There are no apparent surface water intakes for 15 miles downstream from the point of entry at Village Creek into White River. The river is not dammed to form a lake or reservoir at any point in the area (Ref. 19; Ref. 20). A small community (possibly named Benger or Spriggs Mill) is located east of the river and south of Deadman Slough (Ref. 20). The community appears to be in the service area of the Breckenridge Water Users Association, which utilizes well water exclusively (Ref. 21).

Most of the plant site is located in an area of minimal flooding. However, the northeast edge of the site and the outlying area are mapped as a 100 year floodplain (Ref. 22). The flat terrain in the area of the site produces sluggish stream flow and slow runoff rates (Ref. 14, p. G3). Of all the streams in the area, only White River and Village Creek flow faster than 5 cubic feet per second (Ref. 23, Map A 200-34). The maximum recorded depth of White River is 27.9 feet; its average flow over 56 years is 22,700 cubic feet per second (Ref. 24; Ref. 25, p. 176).

The area receives approximately 3.9 inches of rain based on the 2 year, 24 hour rainfall estimate (Ref. 26, Chart 44).

Surface water comprises less than 3% of the water used in Jackson County (Ref. 27, p. 12). It is not used for drinking by Newport, Diaz, or Jacksonport residents. Areas not served by city water most likely use water from private wells (Ref. 15). Only a small amount of land in the Newport area is used for agriculture. The exact amount of farm land could not be determined. Typical

crops for the county include soybeans, rice, corn, wheat and sorghum (Ref. 15). Surface water is used in a limited capacity for irrigation throughout the county (Ref. 15).

White River is used for recreational fishing and boating (Ref. 28).

The pink mucket (Lampsilis orbiculata), found in White River, is listed as endangered by the U.S. Fish and Wildlife Service. The western sand darter (Ammocrypta clara) is also found in the White River. It is not listed as endangered, but is considered vulnerable to extinction and is under watch by the State of Arkansas. Several globally secure species, rare to Arkansas, are also found in this area (Ref. 29).

4.3 SOIL EXPOSURE

Potential soil contaminants include the solvents, coatings and rolling oil Norandal uses in its operations (Ref. 7). The solvents are methyl ethyl ketone, isopropyl alcohol and ethanol. The rolling oil contains Norpar 12, kerosene, mineral spirits and BA-41/BT-45 (Table 1) (Ref. 7). The composition of the coating material was not determined.

The site's 8 USTs total 80,000 gallons. The site has an unspecified number of mobile storage tanks (Ref. 4, Sec. 4). The location of the USTs and mobile storage tanks and the depth of the USTs from the surface could not be determined. The piping for the USTs could also be a source of chemical releases.

An EPA inspection report referred to two 1,000 gallon mobile storage tanks (Ref. 8). The Hazardous Waste Permit Application filed by Revere listed 10,000 gallons of tank storage and 1,000 gallons of drum storage (Ref. 2). Therefore, the site may have as many as 10 mobile storage tanks.

The inspection report from the EPA Surveillance Department referred to a depression into which dirt and solids removed from the waste oil were placed (Ref. 8). The report stated that neither the oil or solids were tested for hazardous characteristics (Ref. 8). According to the report, Revere posted No Smoking signs near this area (Ref. 8). The report did not state whether the area is covered or accessible to employees.

4.4 AIR

Although the plant ejects exhaust gases into the air, the most recent inspections did not reveal violations (Ref. 11, Ref. 12). Land in the area is used for residential, commercial and agricultural purposes.

4.5 GROUND WATER RELEASE TO SURFACE WATER

The bottom of White River lies 185 feet above sea level (Ref. 24). The water level in the well nearest to the site is approximately 226 feet above sea level (Ref. 13, p. 17). Since the water level of the aquifer is higher than the river bottom, a potential for ground water release to surface water exists in this region.

5. TARGETS

This section characterizes the environmental pathways and associated targets of contaminant migration from the facility.

5.1 GROUND WATER

Five wells inside the City of Newport supply all the water for the populations of Newport, Diaz and Jacksonport (Ref. 17). Area residents not supplied with water by Newport use water from private wells (Ref. 15). The closest well to the plant is probably the Holden-Connor Farms well (Ref. 15). The distance from the site to the well has not been determined. The population within 4 miles of the site is estimated at 10,184 (Ref. 19; Ref. 30, p. 11; Ref. 31).

5.2 SURFACE WATER

Surface water is not used for drinking, but is sometimes used for crop irrigation (Ref. 15). There is some farming in the Newport area, but the amount of land used for farming could not be determined. Typical crops for farms in the county include soybeans, rice, corn, wheat and sorghum (Ref. 15). The most common use of surface water is recreational fishing (Ref. 15)

The pink mucket dwells in White River and is federally listed as endangered. The western sand darter also dwells in White River. It is not listed as endangered, but is considered vulnerable to extinction and under watch by the State of Arkansas (Ref. 29).

5.3 SOIL EXPOSURE

The residence nearest to the site is 0.1 of a mile south of the plant. The owner of the residence has not been identified (Ref. 19). The total population within 4 miles of the site is estimated to be 10,184. Approximately 29 people live within a $\frac{1}{4}$ radius of the site. An additional 48 people live within a $\frac{1}{4}$ to $\frac{1}{2}$ mile and 549 people live within a $\frac{1}{2}$ to 1 mile. The 1 to 2 mile radius has approximately 444 residents, the 2 to 3 mile radius has 135 residents, the 3 to 4 mile radius has 641 residents (Ref. 19; Ref. 30, p. 11). Newport is included in the 4 mile target limit. However, not all residences within Newport are shown on the topographical map used to estimate population. Because of this, the number of Newport residents included in each target distance cannot be determined precisely. The population of Newport is 8,338 (Ref. 31).

The Norandal plant operates 7 days a week, 24 hours a day, 50 weeks a year (Ref. 12). It is not known if a fence or other restrictions limit access to the site. The number of plant employees is unknown.

5.4 AIR

The population within 1 mile of the site is estimated at 626. The estimated populations for the 1 to 2, 2 to 3, and 3 to 4 mile radii are estimated at 444, 135 and 641, respectively. The population of Newport is estimated at 8,338 people. (Ref. 19; Ref. 30, p. 11; Ref. 31). The entire population of

Newport is within the 4 mile target limit. However, not all residences within Newport are shown on the topographical map used to estimate population. Because of this, the number of Newport residents included in each ring cannot be determined precisely.

No terrestrial sensitive environments have been identified in the area (Ref. 29). The pink mucket, which is found in the White River, is listed as endangered. The western sand darter is found in the White and Black Rivers, although not endangered, the State of Arkansas considers it vulnerable to extinction (Ref. 29).

6. CONCLUSIONS

Norandal operates an aluminum rolling mill which produces foils made to customer specifications.

The identified SWMUs include 8 USTs, an undetermined number of mobile storage tanks, storage drums, and a disposal area for solids.

The primary pathways of concern are the ground water, surface water, soil exposure, and air. The alluvial aquifer supplies water for drinking and other purposes in the area. Surface water from the plant could migrate into White River, home to the federally endangered pink mucket, and the western sand darter, considered vulnerable to extinction by the State of Arkansas. An undetermined number of farms in the area produce food crops. The plant releases exhaust gases into the air. The population within 4 miles of the site is estimated at 10,184. There is no documentation of hazardous releases in the EPA or ADPCE files.

Norandal grossed \$423 million in sales in 1989, and appears to be financially sound.

ATTACHMENT A

SOLID WASTE MANAGEMENT UNITS

SOLID WASTE MANAGEMENT UNITS

SWMU 1 Underground Storage Tanks

Revere Copper and Brass Inc. listed 8 underground storage tanks on-site in the Hazardous Waste Storage Operating and Training Manual. Three tanks hold 12,000 gallons, 3 hold 8,000 gallons, and the remaining 2 hold 10,000 gallons (Ref. 4, Sec. 4). The Part A Hazardous Waste Permit Application does not list these storage tanks (Ref. 2, p. 1). The contents, location and distance from the surface could not be identified.

SWMU 2 Mobile Storage Tanks

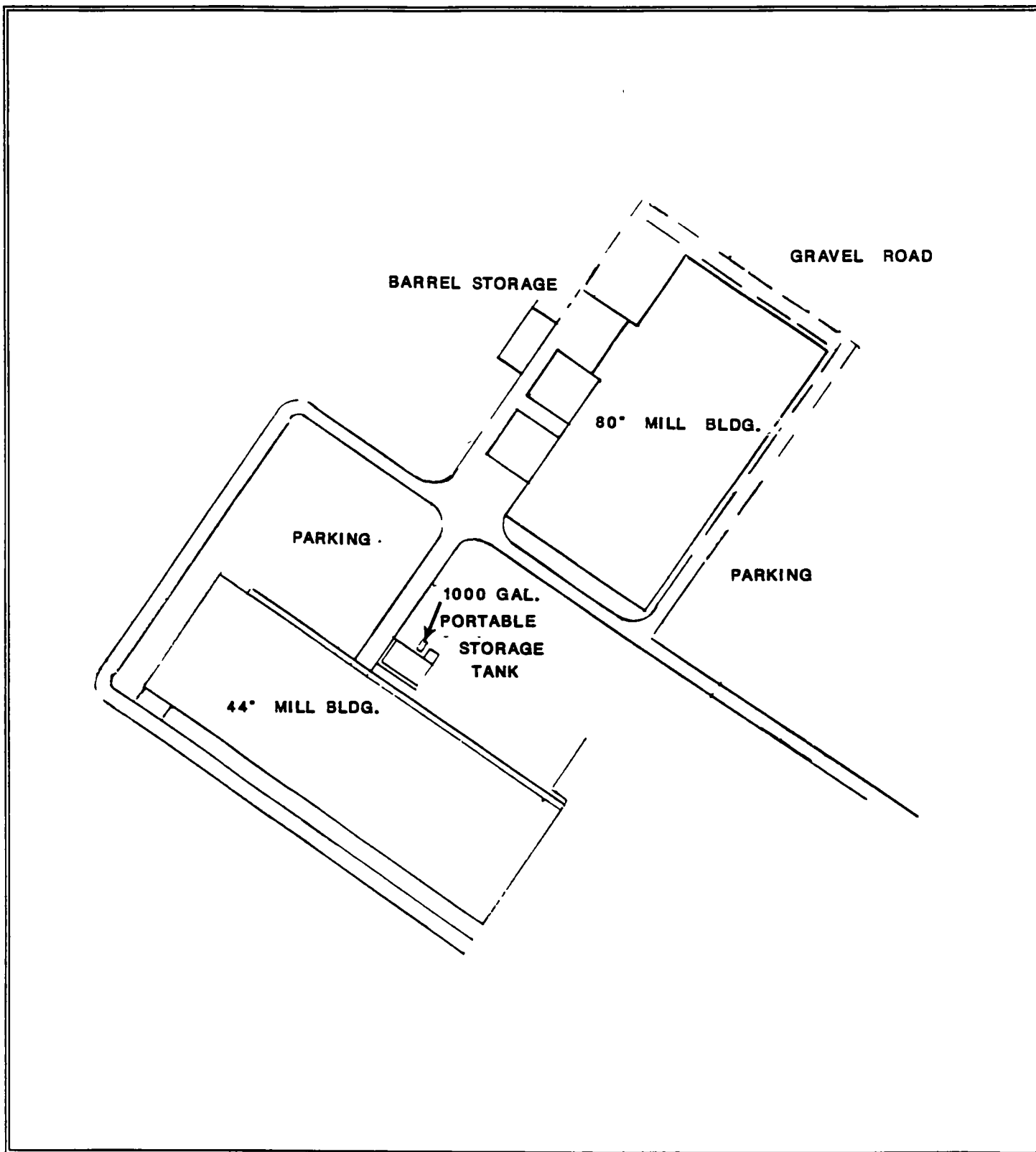
The Revere Copper and Brass Inc. Hazardous Waste Storage Operating and Training Manual referred to mobile oil storage tanks (Ref. 4, Sec. 4). The EPA Surveillance Department inspection report referred to 2 such tanks, each having a capacity of 1,000 gallons, used to transport the waste rolling oil to a nearby refinery (Ref. 8). The Hazardous Waste Permit Application filed with the EPA lists 10,000 gallons of tank storage (Ref. 2, p. 1). Therefore, the site may have as many as 10 such tanks. The rolling oil used by Norandal contains Norpar 12, kerosene, mineral spirits, and BA-41/BT-45 (Ref. 7). Norandal reported 420 tons of used rolling oil sold in 1989 (Ref. 7). It is not specified if this was to the same refinery or if the mobile oil storage tanks are being used for this purpose. Because the tanks are mobile, they do not have a permanent location. In the site sketch, a mobile oil storage tank is located northeast of the 44" Mill Building (Figure 2) (Ref. 2, p. 5).

SWMU 3 Storage Drums

According to the Hazardous Waste Permit Application filed by Revere, the plant had a total of 1,000 gallons available in storage drums (Ref. 2, p. 1). The drums are stored on the northwest side of the 80" Mill Building (Figure 2) (Ref. 2, p. 5). The continued use of these drums by Norandal and the contents of the drums could not be verified.

SWMU 4 Solid Disposal Area

The inspection report from the EPA Surveillance Department referred to a depression into which dirt and solids that had been removed from the waste oil were placed (Ref. 8). The report stated that neither the oil or solids have been tested for hazardous characteristics (Ref. 8). The location of the disposal area was not indicated. It is not known if the disposal area is covered or if access to it is limited.



N



NOT TO SCALE

Site Sketch
NORANDAL USA, INC. NEWPORT PLANT
NEWPORT, AR
TDD NO. F-06-9005-15
CERCLIS NO. ARD006351464
FIGURE 2



PA DOCUMENTATION LOG SHEET

SITE: Norandal USA, Inc. Newport Plant
IDENTIFICATION NUMBER: ARD006351464
CITY: Newport
STATE: Arkansas

REFERENCE NUMBER

DESCRIPTION OF THE REFERENCE

- 1 Dun's Marketing Service, Inc. Million Dollar Directory. America's Leading Public and Private Companies. Parsippany, New Jersey, 1990.
- 2 Letter. Hazardous Waste Permit. From: Revere Copper and Brass, Inc. To: EPA Region VI. November 19, 1980. ARD006351464.
- 3 Letter. EPA Part A Hazardous Waste Permit. From: Allyn David, Director, EPA Air and Waste Management Division, Region VI. To: W.O. Haynes, Revere Copper and Brass, Inc. April 1, 1982.
- 4 Hazardous Waste Storage Operating and Training Manual. Revere Copper and Brass, Inc., Newport, Arkansas.
- 5 Letter. Name and Ownership Change. From: J.R. Suitlas, Manager - Environmental Control, National Intergroup, Inc. To: U.S. EPA Region VI, Air and Hazardous Materials Division. January 7, 1987.
- 6 Letter. Name and Ownership Change. From: Alexander R. Innes, Safety Director, Norandal USA, Inc. To: Vicky Renfrow, Hazardous Waste Division, Arkansas Department of Pollution and Control and Ecology. February 7, 1990.
- 7 Letter. Annual Rolling Oil, Solvent and Coating Usage for 1989. From: Nick Singleton, Technical Manager, Norandal USA, Inc. To: J.B. Jones, Air Division, Enforcement Coordinator, Arkansas Department of Pollution Control and Ecology February 7, 1990.
- 8 Compliance Monitoring Report on Revere Copper and Brass, Incorporated (ARD006351464). Prepared by the EPA Surveillance Branch for EPA Region VI. February 7, 1983.

PA DOCUMENTATION LOG SHEET

CONTINUED

- 9 Letter. Withdrawal of Part A Application for Treatment Storage Interim Status. From: W.O. Haynes, Engineering and Maintenance Manager, Revere Copper and Brass, Inc. To: Mike Bates, Hazardous Waste Inspector, Compliance and Technical Assistance Branch, Arkansas Department of Pollution Control and Ecology. May 18, 1983.
- 10 Letter. Withdrawal of Part A of RCRA Permit. From: Richard H. Quinn, Permits Supervisor, Permits Branch, Arkansas Department of Pollution Control and Ecology. To: W.O. Haynes, Revere Copper and Brass, Inc. June 9, 1983.
- 11 Letter. Routine Air Inspection. From: David E. Channell, District Field Inspector, Environmental Field Services, Arkansas Department of Pollution Control and Ecology. To: Bob Ritchie, General Manager, National Aluminum Corporation. August 4, 1989.
- 12 Letter. Routine Air Inspection. From: S.K. McMillan for David Channell, Inspector, Air Division, Arkansas Department of Pollution Control and Ecology. To: Bob Ritchie, General Manager, Norandal USA, Inc. March 30, 1990.
- 13 Ground Water Levels in the Alluvial Aquifer in Eastern Arkansas. Prepared by the U.S. Geological Survey. 1987.
- 14 Water Resources of Jackson and Independence Counties, Arkansas. Prepared by the U.S. Department of the Interior.
- 15 Record of Communication. Sand and Water Uses in Jackson County. From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. To: Randy Chalpecka, County Agent, Extension Services. June 28, 1990. ARD006351464.
- 16 Record of Communication. Flood Potential of Newport Site. From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. To: Steve Jacks, Soil Conservation Service, Newport, Arkansas. June 28, 1990. ARD006351464.
- 17 Record of Communication. Water Supply for the City of Newport. From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. To: David Sherman, Water Company, Newport, Arkansas. June 25, 1990.
- 18 Soil Survey of Jackson County, Arkansas. Prepared by the U.S. Department of Agriculture. December 1974

- 19 U.S.G.S. 7.5 Minute Series Topographic Maps. Auvergne, Arkansas, 1965. Photorevised 1981. Jacksonport, Arkansas, 1962. Photorevised 1981. Newport, Arkansas, 1962. Photorevised 1981. Tuckerman, Arkansas, 1965. Photorevised 1981.
- 20 U.S.G.S. 7.5 Minute Series Topographic Map. Augusta NE, Arkansas, 1967.
- 21 Record of Communication. Water Source for a Small Community on the White River. From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. To: Lofton Kent, Breckenridge Water Users Association. August 7, 1990. ARD006351464.
- 22 Federal Emergency Management Agency. Flood Insurance Rate Map. Diaz, Arkansas. Jackson County. August 1, 1983.
- 23 5 CFS Streams in Arkansas. Prepared by the Arkansas State Highway and Transportation Department, Environmental Division.
- 24 Record of Communication. Depth of White River Near Newport, Arkansas. From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. To: Elton Porter, U.S.G.S. Water Resources Division, Little Rock, Arkansas. July 26, 1990. ARD006315464.
- 25 Water Resources Data Arkansas Water Year 1989. Prepared by the U.S. Geological Survey. 1989.
- 26 Herschfield, David M. Rainfall Frequency Atlas of the United States. U.S. Department of Agriculture, Soil Conservation Service. May 1961.
- 27 Current Water Resources Activities in Arkansas, 1986-87. Prepared by Bobbie L. Louthian and E.E. Gann for the U.S. Geological Survey. 1988.
- 28 Record of Communication. Uses of the White River. From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. To: Jack Johnson, Corps of Engineers. August 7, 1990. ARD006351464.
- 29 Letter. Endangered Species in Arkansas. From: Cindy Osbourne, Data Manager, Arkansas Natural Heritage Commission. To: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc. July 16, 1990.
- 30 Estimates of Households for Counties: July 1, 1985. U.S. Department of Commerce, Bureau of the Census. March 1988

PA DOCUMENTATION LOG SHEET

CONTINUED

- 31 Record of Communication. Population of Newport, Arkansas.
From: Trudy Tannen, FIT Chemical Engineer, ICF Technology, Inc.
To: City Clerk's Office, Newport, Arkansas. June 21, 1990.
ARD006351464.

100

100

Reference 1

MILLION DOLLAR DIRECTORY

America's Leading Public
& Private Companies

SERIES

Business & Technology

1990

Dallas Public Library

This book is the property of Dun's Marketing Services, Inc., a company of The Dun & Bradstreet Corporation, Three Sylvan Way, Parsippany, NJ 07054
COPYRIGHT 1990 by Dun's Marketing Services, Inc. / Printed in U S A

ISSN 0734-2861

ISBN 0-929277-23-6 (A-F)

0-929277-24-4 (G-O)

0-929277-25-2 (P-Z)

0-929277-26-0 (Reference - Geographic)

0-929277-27-9 (Reference - Industrial Classification)

0-929277-28-7

DUNS 00 627-4385 EXP
R CORP (MO)
 1 St. St. Louis, MO
 Tel (314) 621 6000
 Emp 1100
BOLK & TANK CO DIV Tanks, lined tanks, standard or custom fabricated penstocks metal plate perforating on

3479 1541 1796 8711 Tanks, standard fabricated metal plate pressurizers or upjoints, nuclear metal plate columns etc.) metal plate towers (bubble cooling, etc.) metal plate coating of metals and joints, hot dip coating of metals or formed dustrial buildings new construction installation pollution control equipment energy conservation engineering heating & engineering.
 Alpha Nat Bk Philadelphia, PA
 Jette & Touche
 refit Ch Bd
 nys Pr
 Wolfert Ch
 Rohrbacher VP Sec Tr
 nith Ex VP
 Bouckaert VP Engg
 Bythar VP Pmt Mgr
 Harper VP Admn
 Heilmann VP
 Thiemann VP Prd Engg
 Linzer VP Rgnl Mgr
 Kro VP Fin
 Kolkmeyer Comp
 r Dr Pur
 artin

DUNS 18 485 8066
KA ENVIRONMENTAL SVCS LP
 1518 Dr Herndon, VA
 Tel (703) 435 5775
 Emp 31
 4953 Highway & street construction refuse

Quache Inc Genl Pt
 ngdoman Ltd Pr
 numman Ltd Pt
 eling Pr
 Martin CEO

OH PACKAGING CO INC

DUNS 13 113 0015
AL MOVING SVC INC (CA)
 1000 S. St. San Leandro, CA
 77 Tel (415) 635 1944
 A Emp 75
 14 4213 Household goods moving & storage, household goods transport
 wa Bk CA Lafayette CA
 Mazzetti Pr
 Goza Ch

DUNS 09 364 9481
EASTERN TRAWL SYSTEMS INC (WA)
 4000 Day Rd W. Bannbridge Is. WA
 110 Tel (206) 842 5623
 10MM Emp 100*
 399 Fishing nets
 Lovench Pr
 on Croker Tr
 Lovench Sec
 Croker VP

DUNS 06 812 7646
SEA MARINE
 56 S Point Dr. Laguna Beach, CA
 32653 Tel (714) 855 8344
 4MM Emp 18
 3732 Boats fiberglass building & repairing
 Security Pacific Nat Bk Los Angeles CA
 Bert Egg Owner

DUNS 18 598 3053
IR-AGRA INC
 R 1 PO Box 473 Wahiawa, HI
 58282 Tel (701) 549 3377
 1MM Emp 4
 4221 Grain elevator storage only
 on Lethman Pr
 le Johnson Tr Sec
 ert Johnson VP

DUNS 02 771 8196
OR-AIR INC (OR)
 1 SE Yamhill Portland OR
 97214 Tel (503) 234 0251
 4MM Emp 9
 C 5074 Heating equipment (hydronic) air conditioning equipment except room units
 ynn E Harris Pr
 ight Mc Fedden Sec

DUNS 05 101 4058 EXP
NOR-AM CHEM CO (DE)
 (Suby of SCHERING BERLIN INC)
 009 Silverside Rd. Wilmington DE
 19810 Tel (302) 575 2000
 100MM Emp 250
CLUKON AGRI PRODUCTS Farm supplies
 C 2879 2873 Insecticides agricultural or household pesticides agricultural or household herbicides herbicides nitrogenous fertilizers
 Bank of DE Wilmington DE
 cts Arthur Anderson & Co
 r Klaus Peter Kantzer Ch Bd

*W Leo Ekuns Pr CEO
 George W Pfaltz VP Fin Tr CFO
 Kenneth D Morris Sec Couns
 Dean Katsaros Sr VP Rsch
 James W Rawson VP Mktg
 Edward Aharonson VP Sls

DUNS 03 712 4286
▲ NOR-AM SVC CORP (MO)
HUPPE JOSEPH A ADVT
 (Suby of NORTH AMERICAN SVCS ASSN)
 125th & 571 Hwy Grandnew MO
 Zip 64030 Tel (816) 765 2200
 Sales NA Emp 50
 Tr Sym NASA Exch OTC
 SIC 6141 7311 Installment sales finance other than banks, advertising agencies.
 *Frank M Pruett Pr

DUNS 00 911 3374
● NOR-CAL BEVERAGE CO INC (CA)
 2286 Stone Blvd. W Sacramento CA
 Zip 95691 Tel (916) 372 0600
 Sales 43MM Emp 290
 SIC 2086 5181 5182 Soft drinks, packaged in cans, bottles, etc. fruit drinks (less than 100% juice) packaged in cans, etc. beer & ale wine.
 Bk River City Bk Sacramento CA
 Lgl Csl Hether Stark & Marcus
 VP Pr
 *Roy G Deary Jr Sec Tr
 *Peter Rukala VP
 *Donald R Deary VP

DUNS 00 914 8669
NOR-CAL METAL FABRICATORS (CA)
 1121 3rd St. Oakland, CA
 Zip 94607 Tel (415) 836-1451
 Sales 5MM Emp 45*
 SIC 3444 Sheet metal specialties, not stamped
 Bk Civic Bancorp, Oakland CA
 Lgl Csl Stark Stewart Wells & Robinson
 *Will C Hall Ch Bd
 *Robert C Hall Pr
 *Jean H Hall Sec
 Frank J Schmiding Supr

DUNS 00 921 7688 EXP
NOR-CAL MILLWORK INC (CA)
 1540 S River Rd W Sacramento CA
 Zip 95691 Tel (916) 371 1556
 Sales 4MM Emp 30*
 SIC 2431 Millwork.
 Accts William D Chessum Inc
 *Stanley R Gustafson Pr
 *J S Gustafson Sec

DUNS 00-947 6755
● NOR-CAL PDTS MFG CO INC (CA)
 1512 S Oregon St. Yreka, CA
 Zip 96097 Tel (916) 842 4458
 Sales 5MM Emp 65
 SIC 3494 Valves & pipe fittings.
 Bk Tn Counties Bk Yreka, CA
 Accts Shirley Cain & Gray
 Lgl Csl Ron Rav
 *Ted Hill Pr
 *Hollis Chambers Sec Tr
 *Craig Hill VP

DUNS 13 976 7743
NOR-CAL WILD RICE INC (CA)
 26 Hartier Ste 2 Woodland, CA
 Zip 95695 Tel (916) 661-1606
 Sales 854M Emp 6
 SIC 0112 Rice.
 Bk Valley Nat Bk of AZ Phoenix AZ
 *Ken Foster Pr
 *Nancy Davis Sec Tr

NOR-CARLA BLUE STONE
 See JACOBS CREEK STONE CO INC

DUNS 04 379 9410
● NOR-COLO DISTBTG CO (CO)
 211 30th St. Greeley CO
 Zip 80631 Tel (303) 352 8161
 Sales 19MM Emp 44*
 SIC 5181 Beer & other fermented malt liquors
 Bk United Bk of Greeley NA Greeley CO
 George E Vosmera Ch Bd
 *Larry Vosmera Pr
 *Lene Vosmera Tr
 *Clarence Lewis Sec
 *James Vosmera VP

DUNS 04 987 4555 EXP
NOR-COTE CHEM CO INC (IL)
 506 Lafayette Ave. Crawfordsvl IN
 Zip 47933 Tel (317) 362 9180
 Sales 6MM Emp 40
 SIC 2899 3944 Ink or writing fluids games toys & children's vehicles
 Bk Bank One Crawfordsvl NA Crawfordsvl IN
 *Norman G Wolcott Jr Pr
 *Herman Haffner VP Sls Mktg
 *William Jones VP Engg

DUNS 00 616 9189
● NOR-LAKE INC (WI)
 2nd & Elm Sts Hudson WI
 Zip 54016 Tel (715) 386 2323
 Sales 22MM Emp 250
 SIC 3585 Refrigeration equipment, complete
 Bk First Nat Bk Hudson WI
 Lgl Csl Gwin Gilbert Gwin & Mudge
 *Marie B Blakeman Ch Bd CEO Tr
 *James K Richardson Jr Pr

*Barbara Richardson Sec
 *Dunwayne A Bakus VP Genl Mgr
 Paul Sederstrom VP Mgr

DUNS 19 388-6512
NOR-LAKES SVCS MIDWEST (MN)
 606 Vandake St. St Paul MN
 Zip 55114 Tel (612) 644 4809
 Sales 5MM Emp 10
 SIC 2992 Oils & greases, blending & compounding.
 *Jim Taglia Sr Pr
 *Thor Larson VP Opers

DUNS 06 381 4768
NOR-MAR-SLS CO INC (CA)
 20835 Nordhoff Chatsworth CA
 Zip 91311 Tel (818) 700 8804
 Sales 10MM Emp 37
 SIC 5072 Builders hardware
 *Jordan Kurnick Pr
 *Geraldine Kurnick Sec Tr
 *Norman Kurnick VP
 *Leo Moleck VP

DUNS 04 815 5634
NOR-WAY SPUR FARMERS CO-OP (ND)
 2 1/2 W Hwy 3 Oakes, ND
 Zip 58474 Tel (701) 742 2701
 Sales 4MM Emp 7
 SIC 5153 5191 Grain elevators, fertilizer & fertilizer materials, feed seeds, field garden & flower
 Bk Farm Crdt Svcs. St Paul MN
 *William Dahlen Mgr
 Ivan Becker Robert Forward Harvey Karas, Robert Olson, Tom Schmitz, Floyd Schmitz

DUNS 05 098 0713
NOR-WEL PLUMBING INC (CA)
 2426 Townsgate Rd Unit H Thousand Oaks, CA
 Zip 91361 Tel (805) 497 9602
 Sales 4MM Emp 25
 SIC 1711 Plumbing contractors
 Bk Security Pacific Nat Bk, Los Angeles, CA
 Accts Becker & Co
 *Gerald D North Pr

DUNS 00 881 2265
NOR-WELL CO INC (TN)
 136 Elk Ave. Elizabethton TN
 Zip 37643 Tel (615) 543 4373
 Sales 4MM Emp 60*
 SIC 1711 1761 Plumbing contractors, warm air heating & air conditioning contractor, sheet metal work.
 Bk Citizens Bk, Elizabethton TN
 *Sandy A Greenwell Jr Pr
 *Annelis H Greenwell Tr
 *Ruth H Morris Sec
 *Terry Jones VP
 *Gary Nave VP
 *John Norris VP
 Earl J Norris

DUNS 10 624 5814
NORA JOSEPHINE & BENNY CORP
LEE WONG MERCANTILE CO
 6130 6134 Bergenline Ave West New York NJ
 Zip 07093 Tel (201) 854 0087
 Sales 500M Emp 4
 SIC 5136 5137 5611 5621 Sportswear men's & boys sportswear women's & children's clothing, sportswear men's & boys ready to wear apparel women's
 Bk Hudson United Bk, Cliffside Pk NJ
 *Nora Wong Pr
 *Benjamin Wong VP

DUNS 08 962 5784
NORAC INC (DE)
 2480 W 26th Ave Ste 2 B Denver CO
 Zip 80211 Tel (303) 455 8200
 Sales 2MM Emp 16
 SIC 7812 Television film production commercials, television tape or film
 Bk Central Bk, Denver CO
 Accts Irvine & Patt
 *Philip Garvin Pr
 *Andrew Garvin VP Sec Tr

DUNS 05 194 3264
NORAL COLOR CORP (IL)
 5560 N Northwest Hwy Chicago IL
 Zip 60630 Tel (312) 775 0991
 Sales 6MM Emp 65
 SIC 2796 Color separations for printing.
 Bk First American Bk Skokie IL
 Accts Paul Brown & Co
 *Norman W Staer Ch Bd
 *George Henzler Pr
 *Alan G Schneider VP

DUNS 00 682 2381
NORALCO CORP (PA)
 1920 Lincoln Rd Pittsburgh PA
 Zip 15235 Tel (412) 361 6678
 Sales 5MM Emp 50*
 SIC 1794 1795 1623 Excavation work, demolition buildings & other structures water main construction telephones & communication line construction
 *Allen J Cousin Pr
 *Norman Cousin Sec Tr
 *Norman Hoffman VP

DUNS 07 198 4652
● NORANDA ALUMINUM INC (DE)
 (Suby of NORANDA CORP)
 30100 Chagrin Blvd. Cleveland OH
 Zip 44124 Tel (216) 292 1700
 Sales 600MM Emp 5000
 SIC 3334 3355 3444 3442 3353 Primary aluminum, cable, aluminum made in rolling mills, siding, sheet metal sash door or window metal, aluminum sheet & strip foil, aluminum
 Bk Chase Manhattan Bk NA New York NY
 *A H Zimmerman Ch Bd
 *C W Halstead Pr
 Robert J Motzaka Tr
 John G Onder VP Fin Sec

DUNS 05 582 9428
● NORANDA CORP (DE)
 30100 Chagrin Blvd Cleveland OH
 Zip 44124 Tel (216) 292-1700
 Sales 1300MM Emp 6000
 SIC 3334 3355 Primary aluminum, cable, aluminum made in rolling mills.
 Bk Chase Manhattan Bk NA Inc, New York, NY
 *A R Thomas Pr
 J Stewart Tr
 Ronald Rowe Sec
 J F Minogue Cont

DUNS 19 505-3913
● NORANDA FINANCE INC (OH)
 (Suby of NORANDA CORP)
 30100 Chagrin Blvd Cleveland OH
 Zip 44124 Tel (216) 292 1700
 Sales NA Emp 5000
 SIC 3334 5052 Primary aluminum, metallic concentrates.
 *A R Thomas Pr
 *R J Motzaka Tr
 *John Onder Sec

DUNS 09 379 0277
● NORANDAL USA INC (DE)
 (Suby of NORANDA ALUMINUM INC)
 109 Westpark Dr Ste 420 Brentwood TN
 Zip 37027 Tel (615) 371 1250
 Sales 423MM Emp 702
 SIC 3353 Aluminum sheet & strip; foil aluminum tubes, welded aluminum
 Bk Bank of Huntingdon Huntingdon, TN
 *Elze Borders Ch Bd
 *John Steadman Pr
 *Ron Rowe Sec Tr
 *E F Kimpel VP Sls

DUNS 12 172 5048
▲ NORBANC LEASE INC (PA)
 (Suby of NORTHEASTERN BK)
 201 Penn Ave Scranton PA
 Zip 18503 Tel (717) 961-7348
 Sales NA Emp 8
 Tr Sym PNC Exch MSE NYS
 SIC 6159 Equipment & vehicle finance leasing companies
 *Joseph Durkin Pr
 *Barry Ginder Sec
 *Robert P Sheils Sec

DUNS 06 786 1856 EXP
● NORBELL CORP (MI)
 400 Fontessa Blvd. Daytona Beach FL
 Zip 32014 Tel (904) 255 0935
 Sales 2MM Emp 20
 SIC 3548 Soldering equipment, except hand soldering irons welding & cutting apparatus & accessories.
 *Charles Norlin Pr Ch Bd
 *William R Bell V Ch Bd Sec Tr
 *Theodore Rick Bell Ex VP
 John Mullett Engg

DUNS 05 990 9523
● NORBERT INDUS INC (MI)
 (Suby of TO MO RO INC)
 38111 Commerce Sterling Hts MI
 Zip 48077 Tel (313) 977 9200
 Sales NA Emp 50
 SIC 3599 Machine shop jobbing & repair
 Bk Michigan Nat Bk Macomb Warren MI
 Lgl Csl Dahlberg Mallender & Gagne, Birmingham
 *Lawrence Tomayko Pr
 *Dennis Rovano VP Tr
 *James Moran Sec
 Arthur Schmalz VP

DUNS 00 793 9077 EXP
● NORBEST INC (UT)
 6925 S Union Park Ctr Midvale UT
 Zip 84047 Tel (801) 566-5656
 Sales 162MM Emp 32
 SIC 5144 Poultry & poultry products
 Accts Sunville Griffin & Smith
 *Kenneth D Rutledge Pr

DUNS 06 595-6062
NORBET TRUCKING CORP (NY)
 55 Passaic Ave Kearny NJ
 Zip 07032 Tel (201) 991 1500
 Sales NA Emp 30
 SIC 4213 Contract haulers
 Bk Republic Nat Bk of NY, Brooklyn NY
 *Barry Rosenthal Pr
 *Craig Eisenberg Sec Tr

4
12-10-2017

1
1
1

Reference 2

REVERE

COPPER AND BRASS INCORPORATED



HIGHWAY 67
NEWPORT, ARK 72112
Cable Address REVERECOP—NEW YORK
501-523-2771

November 19, 1980

EPA Region VI
Attn: 6 AEP
1201 Elm Street
First International Building
Dallas, TX 75270

Subject: Hazardous Waste Permit

Dear Sirs:

please find enclosed the subject forms, consisting of Form 1, Form 3-RCRA. Also included is a Facility Drawing (Page 5), and an Aerial Photograph, four (4) Geological Survey Maps, depicting the area, consisting of the Jacksonport Quadrangle, the Tuckerman Quadrangle, the Newport Quadrangle and the Auvergne Quadrangle Arkansas Maps.

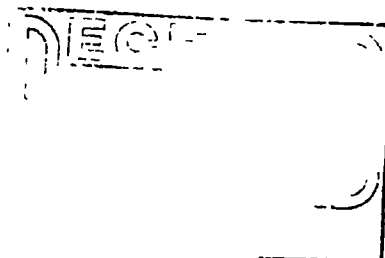
Should you have questions relative to our request, please contact the undersigned.

Sincerely,

REVERE COPPER AND BRASS INCORPORATED
Foil Division

W. O. Haynes

WOH/ap
encls.



GENERAL INFORMATION				PREPARED NUMBER			
GENERAL INSTRUCTIONS				GENERAL INSTRUCTIONS			
ARD006351464				ARD006351464			
REVERE COPPER & BRASS INC. HWY. 67 N. NEWPORT, AR 72112				GENERAL INSTRUCTIONS			
HWY. 67 N. NEWPORT, AR 72112				The preprinted label is provided for use in the designated areas. Read the instructions carefully. Mark "X" in the appropriate boxes. If the preprinted data is not correct, write the correct data in the space provided. If the label is not complete, correct the data. If the label is not complete, correct the data. If the label is not complete, correct the data.			
INSTRUCTIONS: Complete this form to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any question, you must submit the appropriate form listed in the parentheses following the question. Mark "X" in the box for the third column of the supplemental form. If marked "X" in the third column, you must submit the form. If you answer "no" to all questions, you need not submit any of these forms. You may answer "no" to your activity is excluded from permit requirements. See Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.							
SPECIFIC QUESTIONS				SPECIFIC QUESTIONS			
A. Is this facility a publicly owned treatment works which treats or discharges wastewater to the U.S.? (FORM 251)				B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)			
X				X			
C. Is this facility a publicly owned treatment works which discharges wastewater to the U.S.? (FORM 251)				D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)			
X				X			
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)				F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing within one quarter mile of the well bottom underground sources of drinking water? (FORM 4)			
X				X			
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)				H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			
X				X			
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)				J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			
X				X			
III. NAME OF FACILITY				IV. FACILITY CONTACT			
1 SKIP REVERE COPPER AND BRASS INCORPORATED				A. NAME & TITLE (last, first, & title)			
18 19 - 22 23				B. PHONE (area code & no.)			
2 HAYNES W O E N G & M A I N T. M G R				5 0 1 5 2 3 2 7 7 1			
18 19				48 49 - 51 52 - 55			
V. FACILITY MAILING ADDRESS				VI. FACILITY LOCATION			
A. STREET OR P.O. BOX				A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
3 HIGHWAY 67 NORTH				5 HIGHWAY 67 NORTH			
18 19				18 19			
B. CITY OR TOWN				B. COUNTY NAME			
4 NEWPORT				JACKSON			
18 19				48 49 - 51 52 - 55			
C. STATE				D. ZIP CODE			
AR				7 2 1 1 2			
41 42				47 48 - 51 52 - 55			
E. ZIP CODE				F. COUNTY CODE (if known)			
7 2 1 1 2							
47 48 - 51 52 - 55				32 - 34			
G. CITY OR TOWN				H. STATE			
6 NEWPORT				AR			
18 19				41 42 47 48 - 51 52 - 55			

NOV 9 1980

7	3	3	5	3	(specify)	ROLLING OF ALUMINUM FOIL	3	4	9	7	(specify)	ALUMINUM FOIL LAMINATED TO PAPER
8					(specify)						(specify)	

OPERATOR INFORMATION

REVERE COPPER AND BRASS INCORPORATED											
STATUS OF OPERATOR (check one appropriate)											
FEDERAL		PUBLIC (not then federal or state)		P (specify)		A		5		0	
STATE		OTHER						7		2	
PRIVATE								7		7	
STREET OR P.O. BOX											
HIGHWAY 67 NORTH											
CITY OR TOWN											
NEWPORT											
STATE AND CODE											
AR 72112											
INDIAN LAND											
Is the facility located on Indian land?											
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO											

EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Waters)												B. RCRA (Air Emissions from Proposed Sources)											
T 1												S T 1											
N A R 0 0 0 1 4 8 1												S T 2											
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30												13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30											
C. UIC (Underground Injection of Fluids)												D. OTHER (specify)											
T 1												S T 1											
U												S T 2											
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30												13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30											
E. RCRA (Hazardous Waste)												F. OTHER (specify)											
T 1												S T 1											
R												S T 2											
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30												13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30											
MAP																							

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

NATURE OF BUSINESS (provide a brief description)

ALUMINUM FOIL ROLLING AND LAMINATING

F9: A
51

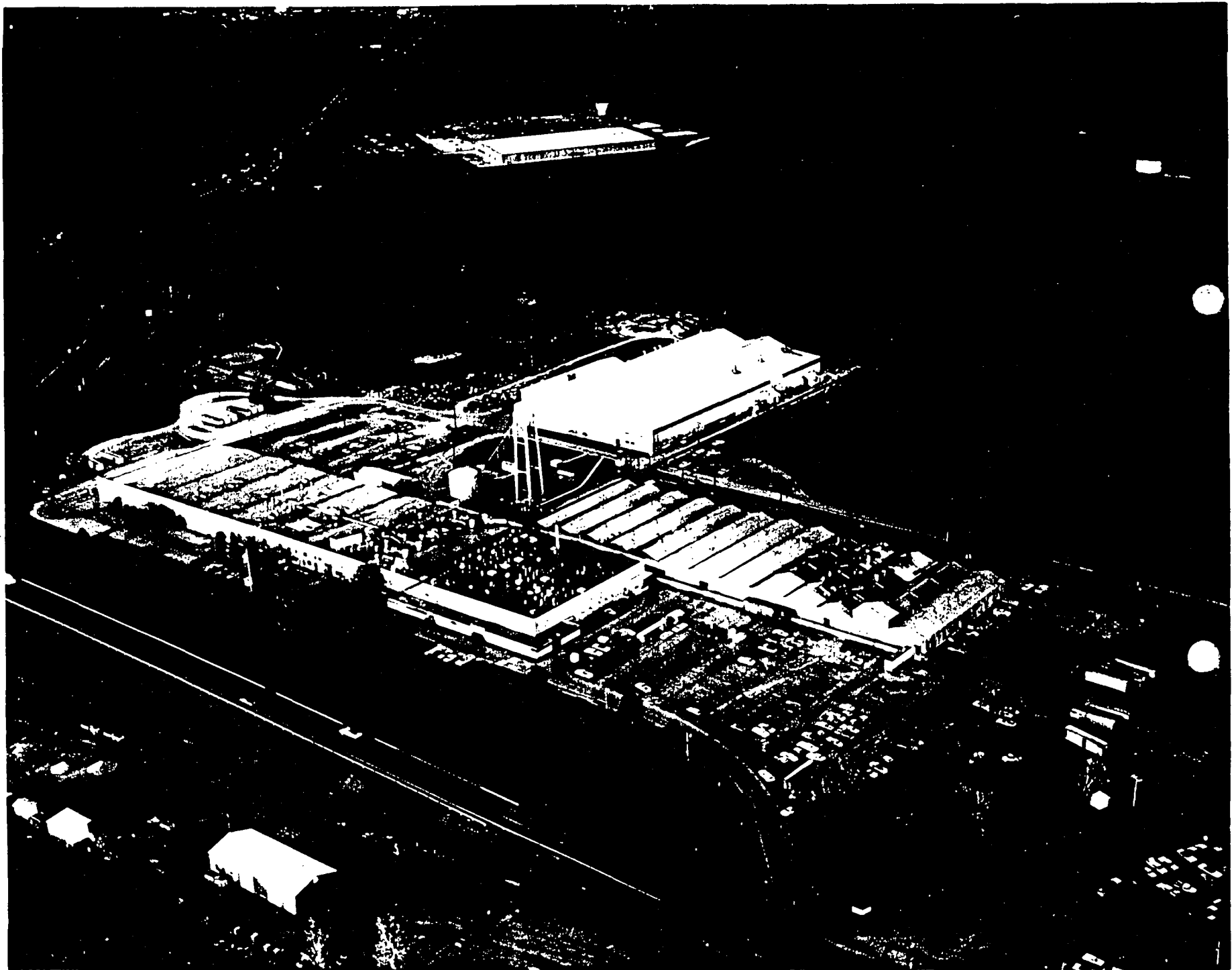
I. CERTIFICATION (see instructions)

certify, under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME & OFFICIAL TITLE (type or print)	SIGNATURE	DATE SIGNED
J. J. CAMPBELL, V. P. AND GEN. MGR.	<i>J. J. Campbell</i>	11/10/80

COMMENTS FOR OFFICIAL USE ONLY

--	--



FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr. mo. & day)	COMMENTS
	8 10 11 11 9	

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

☒ 1 EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

☐ 2 NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr. mo. & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

FOR NEW FACILITIES, PROVIDE THE DATE (yr. mo. & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

☐ 1 FACILITY HAS INTERIM STATUS

☐ 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

3. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.

2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS		T04	GALLONS PER DAY OR LITERS PER DAY
Disposal:			OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided, Item III-C.)		
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below) A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour

C		D U P		T/A C		I			
LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1 AMOUNT (specify)	2 UNIT OF MEASURE (enter code)				1 AMOUNT	2 UNIT OF MEASURE (enter code)	
X-1	S 0 1	500	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	1,000,000	G		7				
2	S 0 2	10,000,000	G		8				
3	T 0 1	500,000	U		9				
4					10				

PROCESSES (continued)

SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

DESCRIPTION OF HAZARDOUS WASTES

A HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

PROCESSES

PROCESS CODES.

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above, (2) Enter "000" in the extreme right box of Item IV-D(1), and (3) Enter in the space provided on page 4, the line number and the additional code(s).

PROCESS DESCRIPTION If a code is not listed for a process that will be used, describe the process in the space provided on the form.

E. HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows

Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.

In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.

Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
			1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1 K 0 5 1	900	P	T 0 3 D S 0	
2 D 0 0 2	400	P	T 0 3 D 8 0	
3 D 0 0 1	100	P	T 0 3 D 8 0	
4 D 0 0 2				included with above

EPA I.D. NUMBER (enter from page 1)												FOR OFFICIAL USE ONLY											
WARD00635146431												W DUP 2 DUP											

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

WASTE NO. (1)	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE (2)	C. UNIT OF MEASURE (enter code)	D. PROCESSES							
				1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))			
1	F 0 0 5	84,000.000	P	S 0 1	S 0 2						
2	D 0 0 1	796068.000	K	T 0 1	S 0 2						
3	D 0 0 1	555,000	P	S 0 2							RESULTANT OF TREATMENT
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)**E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.**

EPA ID NO (enter from page 1)													
A	R	D	0	0	6	3	5	1	4	6	4	T/A	C
												3	6

FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

I. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

II. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)										LONGITUDE (degrees, minutes, & seconds)									
3	5	0	3	8	4	5	0	0	0	0	9	1	1	5	1	0	0	0	0

III. FACILITY OWNER

☒ A If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items

1 NAME OF FACILITY'S LEGAL OWNER										2. PHONE NO (area code & no)									
3 STREET OR P O BOX										4 CITY OR TOWN									
5 ST										6. ZIP CODE									

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A NAME (print or type)	B SIGNATURE	C DATE SIGNED
J. J. CAMPBELL- V.P/GEN. MGR.		11/10/80

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A NAME (print or type)	B SIGNATURE	C DATE SIGNED

V FACILITY DRAWING (see page 4)

925

1890

GRAVEL RD

208X384

30" MILL
BLDG

BARREL STOR

35'
75'

PARKING

ROAD

PARKING

1000 GALL
PAINT STOR
TANK.44' MILL
BLDG

70 X 92

ROAD

COMPASS
NORTH

LAT 35°-38'-45"

LON W 91°-15'-10"

2017

1
1
1

Reference 3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI

1201 ELM STREET

DALLAS, TEXAS 75270

April 1, 1982

Revere Copper and Brass Inc
Attn: W.O. Haynes
Highway 67 North
Newport, Arkansas 72112

Re: EPA ID Number: ARD 00 635 1464
Facility Location: Hwy 67 North
Newport, Arkansas

This is to acknowledge that the Environmental Protection Agency has completed processing the information submitted in your Part A Hazardous Waste Permit Application. It is the agency's opinion, based on the assumption that the information submitted is complete and accurate, that you as an owner or operator of a hazardous waste management facility, have met the requirements of Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) for interim status. EPA has not verified the information submitted. If it is determined that the information is incomplete or inaccurate, you may be asked to provide additional information or in certain circumstances it may be determined that you do not qualify for interim status. In addition, this notice does not preclude a citizen from taking legal action under the provisions of Section 7002 of RCRA.

A facility not meeting the requirements for interim status under Section 3005 of RCRA may be required to close until such time as a Hazardous Waste Permit is issued. Interim status may also be terminated, according to procedures in 40 CFR, Part 124, if the owner or operator fails to furnish additional information which EPA requests in order to process a permit application.

As an owner or operator of a hazardous waste management facility, you are required to comply with the interim status standards as prescribed in 40 CFR, Parts 122 and 265, or with state rules and regulations in those states which have been authorized under Section 3006 of RCRA. In addition, you are reminded that operating under interim status does not relieve you from the need to comply with all applicable state and local requirements.

The enclosure to this letter identifies the processes your facility may use, their design capacities and the types of waste your facility may accept during interim status. This information was obtained from Part "A" of the Permit Application. If you wish to handle new wastes, change processes, increase the design capacity of existing processes, or change ownership or operational control of the facility, you may do so only as provided in 40 CFR, Sections 122.22 and 122.23.

If you have any questions concerning this letter, please contact Dwight Corley at 214/767-2765 or write Environmental Protection Agency, Mail Code 6E-P, 1201 Elm Street, Dallas, Texas 75270.

Sincerely yours,

A handwritten signature in cursive script that reads "Allyn M. Davis".

Allyn Davis
Director, Air and Waste Management Division (6AW)

Enclosure

cc: Arkansas Department of Pollution
Control & Ecology

10/10/2021

10/10/2021

Reference 4

ARD 006351464

IVC

HAZARDOUS WASTE

Storage Operating & Training Manual

Copy:

Sec II Types of Haz. Waste

Sec IV Chap 2, Chap 4-6
Chap 8, Chap 11
Chap 13 + 14

NATIONAL ALUMINUM

REVERE COPPER & BRASS INC.

Newport Ar. 72112

INDEX

SECTION I	HANDLING AND STORAGE OF HAZARDOUS WASTE
SECTION II	TRAINING PROGRAM FOR THE STORAGE AND HANDLING OF HAZARDOUS WASTE
SECTION III	PLANT EMERGENCY ORGANIZATIONAL PLAN
SECTION IV	SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

1.1 TYPE OF HAZARDOUS WASTE WE GENERATE:

MEK, Korosene, Alcohol, and waste oils.

*MBK, Petrolene, Ethyl Alcohol, Isopropyl Alcohol,
Sylol, Ethyl Asitrate and other thinners and
carriers.*

1.2 CHARACTERISTICS OF HAZARDOUS WASTE WE GENERATE:

Ignitible and flammable.

CHAPTER #8:

INSPECTION & RECORDS

112.7

(A) The Newport Foil Division ~~is~~ engaged in rolling and laminating of aluminum foil products. This Division has underground storage tanks with a total capacity of 80,000 gallons, contained in the following tanks:

(a) Three (3) each 12,000 gallon tanks

(b) Three (3) each 8,000 gallon tanks

(c) Two (2) each 10,000 gallon tanks

The intent of this plan is to provide the means to assure the continued good spill prevention record maintained in the past. This plan has the support of the management of the Revere Corporation.

112.7 III

(A) A dike is installed in the ditch south of the plant entrance to the 82" mill building. The dike is capable of storing 10,000 gallons of oil in the addition to its normal water level.

112.7 III

(B) This dike is engineered in such a manner that the normal water flow from the Plant will be from the bottom of the dike allowing an accumulation of water held above the outlet so that any oil spills will be trapped and held in the dike.

112.7 III

(C) An inspection of the above catch will be performed each day. In the event of detection of oil in this dike, the Emergency Coordinator or persons designated by him, will be notified immediately.

112.7 III

(D) A record of each inspection will be maintained in the files by the Emergency Coordinator. This record will show as a minimum the following:

112.7 III

(D) Continued -

1. Date
2. Shift
3. Inspector
4. Condition of water in dike (time).
If oil is present (cause)
5. Oil removed date (time)

Note:

Oils removed will be stored in appropriate containers in such a manner that they will not re-enter the water system.

112.7 E (XI)

- (1) All mobile oil storage tanks will be positioned in places provided and so identified. These areas will be so designated that any oil spills will be contained and will preclude spilled oil from reaching navigable waters.

112.7 (3)

Facility Transfer Operations, Pumping, and in Plant Process.

- (1) When a section of buried line is exposed for any reason, inspection will be performed to determine possible deterioration. Appropriate steps as necessary will be made to correct any deterioration.

Note:

Where possible, above ground piping will be used in future installations.

112.7 (3) II

When a pipeline is not in service for an extended period of time, it will be capped and identified.

112.7 (3) V

Vehicular traffic will be warned by appropriate signs of piping that may exist above ground to prevent damage.

112.7 IV

- (A) Daily consumption data is maintained on each tank. These records will be reviewed to determine if any abnormality exists. If the tank levels do not agree with the consumption records or should consumption rise ~~for~~ an unexplained reason, an investigation will be performed immediately to determine the cause.

112.7 IV

- (B) Audits for each storage tank will be made on a weekly basis. Reports will include as a minimum:

1. Date
2. Person making report
3. Actual audit of consumption
4. Evaluation
5. If audit denotes a leak or possible leak, exact conditions specified, findings, corrections and recommendations, etc.

The Audit Report will be filed with the Emergency Coordinator. Results will be available for future reference.

112.7 E

- (A) Storage tank pumps, valves and piping will be visually inspected for possible leaks on a weekly basis. Leaks will be repaired and the system properly maintained to prevent spilled oil from reaching navigable waters. This inspection will be performed on a monthly basis.

112.7 E

- (B) The liquid level sensing devices will be tested on a monthly basis. Tests will include:

112.7 E

(B) - Continued -

1. Date - time
2. Person performing tests
3. Device under test and location
4. Findings
5. Repairs made, if any

Note:

Test will be filed with Emergency Coordinator

112.7 (4) II

When loading or unloading is being performed, the Receiving Clerk will (A) verify proper hose connections; (B) watch for possible leaks or spills and will inform the Emergency Coordinator immediately of any violation; (C) will watch and assure that the tank is not overfilled; (D) that truck hoses are disconnected prior to the trucks departure; (E) that the appropriate fill caps are back in place on the tanks before leaving the area.

112.7 (4) III

Signs will be provided in the loading/unloading area alerting the driver to disconnect flexible or fixed transfer lines before departing.

112.7 (4) IV

Prior to departure of the truck, the Receiving Clerk will verify that all outlets on the tank truck have been properly closed to prevent liquid spillage.

112.7 (9) Security

- (A) Security will be maintained at all times. Entrance gates will be locked and/or guarded when the Plant is not in production or is unattended.

112.7 (9) I

All master flow and drain valves that will permit direct outflow of the tank contents to the surface will be secured in the closed position when in non-operating status.

112.7 (9) II

The started controls on all oil pumps will be locked in the off position or located at a site accessible only to authorized personnel when the pumps are in a non-operating status.

112.7 (9) III

The loading/unloading connections of oil pipelines will be securely capped when not in service for an extended period of time.

112.7 (9) IV

Facility lighting will be located in such a manner that oil spills can readily be detected during darkness.

CHAPTER #11:

INSPECTION RECORDS AND RETENTION

All inspections required by this procedure will be properly documented on an appropriate form. These forms will be signed by the Inspector and filed with the Emergency Coordinator. All records will be maintained for a period of three (3) years.

2017

1

2

3

Reference 5

RECEIVED
EPA REGION VI

1987 JAN 21 AM 8:48

HAZ.
PROGRAMS BRANCH

NATIONAL
Intergroup, Inc.

January 7, 1987

U.S. EPA Region VI
Air and Hazardous Materials Division
1201 Elm Street
Inter-First Two Building
Dallas, TX 75270

Subsequent

Re: NAME AND OWNERSHIP CHANGE
Notification for Hazardous Waste Activity-ID No. ARD006351464

Gentlemen:

Enclosed is a "Notification of Hazardous Waste Activity" form on behalf of the National Aluminum plant at Newport, Arkansas. Purpose of the notification is to advise of an ownership change and name change for the facility using EPA ID No. ARD006351464.

National Aluminum Corporation on November 19, 1986 acquired, via purchase, the aluminum rolling/laminating mill located at Highway 67 North, Newport, Arkansas. The facility previously was known as the Revere Foil Company and was owned by Revere Copper and Brass Incorporated of Stanford, Connecticut. Due to the plant purchase, the ID Number needs to be listed on your records as belonging to National Aluminum Corporation and the plant name as National Aluminum. The enclosed amended "Notification of Hazardous Waste Activity" form is for the purpose of making the record changes.

A condition of the sales/purchase agreement between National Aluminum Corporation and Revere Copper and Brass Incorporated stipulates that all environmental liabilities and/or consequences, if any, arising from activities prior to November 19, 1986 will remain the responsibility of Revere Copper and Brass Incorporated. Therefore, any correspondence regarding EPA ID No. ARD006351464 for matters occurring prior to November 19, 1986, should be directed to Revere Copper and Brass Incorporated.

If you have any questions regarding the above, or need any additional information, don't hesitate to call (304) 797-5027. I function as an environmental consultant to National Aluminum Corporation.

Sincerely,

J. R. Switlas

J. R. Switlas
Manager - Environmental Control

JRS/pc

4 Jan 7

2000

2000

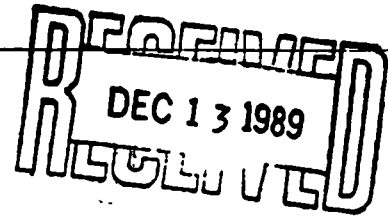
Reference 6

DEC 26 1989

Norandal USA, Inc
Two Brentwood Commons, Suite 102
750 Old Hickory Boulevard
Brentwood, Tennessee 37027
(615) 371-1250 • FAX (615) 371-1251

norandal

ARD006351469



December 7, 1989

Hazardous Waste Division
Arkansas Department of Pollution
Control and Ecology
P.O. Box 9583
Little Rock, Arkansas 72219

Attention: Ms. Vicky Renfrow

Dear Ms. Renfrow:

I am writing to inform you that the closing date of the purchase of National Aluminum Corporation's Newport, Arkansas facility ("National Aluminum") by Norandal USA, Inc. ("Norandal") has been set. As I notified you earlier, the October 30, 1989, closing had been delayed, and as a result I requested that you put a hold on the effective date of the transfer to Norandal of E.P.A. I.D. #ARD 006351464..

I can now inform you that the closing will occur on December 11, 1989. Accordingly, I would now request that you make the transfer effective on that date.

If you have any questions regarding this matter, please call Mr. Alexander R. Innes of Norandal at (901) 986-2729 or Mr. John J. Gruttadaurio of Thompson, Hine and Flory at (216) 566-5819.

Thank you for your assistance and patience.

Very truly yours,

Alexander R. Innes
Alexander R. Innes
Safety Director

ARI/lpb

cc: Mr. John H. Steadman
Donald H. Messinger, Esq.
William H. West, Esq.
John J. Gruttadaurio, Esq.

40
#171081000

10
10
10

Reference 7

Norandal USA, Inc.
Newport Rolling Mill
Post Office Box 1748
Newport, Arkansas 72112
(501) 523-2771 • (800) 643-0140

norandal

Handwritten: DUE

February 7, 1990

RECEIVED
FEB 12 1990
ENV

Air Division, Enforcement Coordinator
ARK. DEPT. OF POLLUTION CONTROL & ECOLOGY
P. O. Box 9583
Little Rock, AR 72209

Attention: Mr. J. B. Jones

Dear Mr. Jones:

Please find enclosed the summary report of annual rolling oil, solvent, and coating usage required under Permit #907-AR-1 (CSN: 340010) for Norandal USA, Inc. dated December 15, 1989. The enclosed summary indicates compliance with the permit limits, and records are currently on file at plant site.

Norandal sincerely appreciates the extended period of time granted in regards to the January 31, 1990 deadline.

If you have questions relative to the subject matter please feel free to contact me.

Sincerely,

NORANDAL USA, INC.
Newport Rolling Mill

Nick Singleton
Nick Singleton
Technical Manager

CSN: 34-0010 Permit No. 907-AR-1
Media: Air, Water, Solid, Hazardous
Sort: Permit, Compliance

NS/ag
encl.

cc: B. Ritchie
M. Henderson
G. Janski

ANNUAL ROLLING OIL USAGE 1989

<u>Norpar 12</u>	304,693 Gals.	<u>953.69 Tons/Yr</u>
<u>Kerosene</u>	143,016 Gals.	<u>489.11 Tons/Yr</u>
<u>Mineral Spirits - Rule 66</u>	186,758 Gals.	<u>612.57 Tons/Yr</u>
<u>BA-41/BT-45</u>	24,780 Gals.	<u>86.48 Tons/Yr</u>
<u>Total Rolling Oil</u>	659,247 Gals.	<u>2141.85 Tons/Yr</u>
<u>USED Rolling Oil Sold</u>		<u>420.04 Tons/Yr</u>
<u>Net Rolling Oil Usage</u>		<u>1721.81 Tons/Yr</u>

ANNUAL SOLVENT & COATING USAGE 1989

<u>Dulutant Solvent:</u>	<u>MEK</u>	<u>68,214 Gals.</u>
	<u>IPA</u>	<u>30,507 Gals.</u>
	<u>Ethanol</u>	<u>67,068 Gals.</u>
<u>Coating</u>		<u>88,654 Gals.</u>
<u>Total Solvent & Coating</u>	<u>254,443 Gals.</u>	
<u>Less Hazardous Waste Shipments</u>	<u>8,990 Gals.</u>	
<u>Net Solvent & Coating Usage</u>	<u>245,453 Gals.</u>	

2000

2000

Reference 8

ROUTING AND TRANSMITTAL SLIP

Date 3/25/83

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. <u>Dan Johansen</u>		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Dan, During joint inspections 3/21-24/83, Mike Bates and I were near Revere Copper & Brass and stopped off to take some samples of the waste they ship to Day Refinery. Wally Hanes of Revere had amended his hazardous waste manual to incorporate findings in Mike's enforcement letter to Revere. This is a copy of that amended manual.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
<u>Holly</u>	Phone No.

5041-102

GPO 1981 O - 341-529 (25)

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: 2/11/83

SUBJECT Transmittal Memo - Compliance Monitoring Report(s)

FROM:

Holly Anderson

(Inspector)

Surveillance

(Branch)

TO:

6ASA

THRU:

A compliance monitoring joint inspection was conducted on

2/7/83

Date(s)

at the following location: AR D 006351464

NAME: Revere Copper and Brass Incorporated

ADDRESS: High 67 North Newport Arkansas 72112

NPDES Permit No: AR 0001481

AQCR: _____

Type of Facility: Federal () Municipal () Non-Municipal (✓)

Compliance Monitoring Reports Attached: (Check appropriate space)

	<u>Water</u>	<u>Air</u>	<u>O & M</u>	<u>SPCC</u>	<u>TSCA</u>	<u>RCRA</u>
NPDES	()	SIP ()	Form 7500-5 ()	()	()	(4)
Form 3560-3	()	NSPS ()				
Major	()	NSR ()				
Minor	()	PSD ()				
NOD	()	NESHAP ()				
CEI	()	Demo. ()				
CSI	()					
129 p. p.	()					
Bioassay	()					
Salmonella	()					
PCB	()					

Comments: Revere has 1 : 100,000 lb. of lead + they are
storing lead in a building that is not a storage building
operational site. < 100,000 lb. of lead

Reviewed by Mike Mitchell
2/14/83

RCRA INSPECTION

I. SITE IDENTIFICATION

ARD 006351464

Site Name

8. Street (or other identifier)

New Copper and Brass Inc.

High 67 North

City

D. State

E. Zip Code

F. County Name

Wheat

AR

72112

Jackson

Site Operator Information

1. Name

2. Telephone Number

Same as above

3. Street

4. City

5. State

6. Zip Code

Site Description

Manufacturing + Laminating - ~~HA~~ tanks

Latitude (deg.-min.-sec.) 35 38 45

Longitude (deg.-min.-sec.) 91 15 15

Type of Ownership

☐ 1. Federal ☐ 2. State ☐ 3. County ☐ 4. Municipal ☒ 5. Private☐ 1. Generator ☐ 2. Transporter ☐ 3. Treatment ☐ 4. Storage ☐ 5. Disposal

INSPECTION INFORMATION

Principal Inspector Information

Name

2. Title

Mr. R. L. ...

Reg. Waste Inspector

Organization

4. Telephone No. (area code & No.)

ADPC + E

(501) 562-7444

Section Participants

Mr. Anderson - EPA Region 6

Mr. B. ... - Reiner

Compliance Monitoring Joint Inspection Report
Generators and Facilities Checklist

Hazardous Waste Determination (Part 261.20-261.33) ARD006 351464

1. Note generated solid waste(s) listed in Part 261 Subpart D and solid waste(s) that exhibit hazardous characteristics (corrosivity, ignitability, reactivity, EP toxicity) on narrative explanations sheet.

See narrative
Attachment 1

Manifest (Part 262.20-262.23)

1. If the generator is required to use a manifest shipping control ticket is manifest properly completed?

Yes ☒ No ☐

PreTransport Requirements (Part 262.30-262.34)

1. Does generator appear to use standard DOT procedures for packaging, labeling and marking of hazardous waste?
flammable placards are used on portable tank
2. Accumulation Time - (May accumulate hazardous waste for up to 90 days without a permit provided).

Yes ☒ No ☐

- a. If containers are used to temporarily store waste before transport, is each container clearly dated?

Yes ☐ No ☐

- b. Are containers inspected for leakage or corrosion at least weekly?

Yes ☐ No ☐

- c. Are containers holding ignitable or reactive waste located at least 15 meters (50 feet) from the facility's property line?

Yes ☐ No ☐

NOTE: 1. Complete all appropriate specific facility checklists.
2. If generator accumulates waste on-site for less than 90 days, (has no TSD facilities) complete questions on Personnel Training, Preparedness and Prevention and Contingency Plan.

Recordkeeping and Reports (Part 262.40-262.43)

1. Does generator keep the required records and reports for three years?

Yes ☐ No ☐ N/A

Waste Analysis - (Part 265.13-265.14)

1. Does facility have an adequate waste analysis plan? Yes ☐ No ☐
2. Does the facility provide adequate security? Yes ☐ No ☐ N/A
3. Does the facility have a sign with the legend "Danger-Unauthorized Personnel Keep Out" Yes ☐ No ☐

Inspection Requirements - (Part 265.15)

Does facility maintain an adequate written inspection schedule and plan?

Yes ___ No ___

N/A

2. Does the owner/operator maintain an inspection log?

Yes ___ No ___

→ Personnel Training - (Part 265.16)

1. Does the owner/operator maintain adequate Personnel Training Records at the facility? *See narrative Attachment 1*

Yes ___ No ☒

Requirements for Ignitable, Reactive or Incompatible Waste (Part 265.17)

1. Does the owner/operator maintain proper separation and safeguards needed to prevent ignition or reaction of ignitable or reactive waste?

Yes ___ No ___

N/A

2. Inspect containers:

a. Has owner transferred waste from all containers leaking, bulging, or corroding?

Yes ___ No ___

→ Preparedness and Prevention - (Part 265.30-265.37)

1. Does the owner/operator have phone numbers of and agreements with police, fire departments, emergency response teams, emergency response contractors and equipment suppliers, as appropriate?

See narrative Attachment 1

Yes ___ No ☒

a. Are they readily available to the emergency coordinator?

Yes ___ No ☒

→ Contingency Plan & Emergency Procedures - (Part 265.50-265.56)

1. Is an adequate contingency plan maintained at the facility?

See narrative Attachment 1

Yes ☒ No ___

Manifest System, Recordkeeping & Reporting (Part 265.70-265.77)

1. If facility receives waste from off-site, does the owner/operator comply with manifest requirements?

Yes ___ No ___

2. Does the owner/operator keep an adequate written operating record(s) at the facility?

Yes ___ No ___

N/A

3. Does the owner/operator maintain a closure plan for all facilities?

Yes ___ No ___

4. Does the owner/operator maintain a post closure plan for disposal facilities?

Yes ___ No ___

Groundwater Monitoring - (Part 265.90-265.94)

1. Does facility have the proper number of groundwater monitoring wells?

Yes ___ No ___

2. Does owner/operator maintain an adequate groundwater monitoring and sampling plan?

Yes ___ No ___

N/A

Revere

ARD006351464

Attachment 1

Hazardous Waste Determination

Revere Copper and Brass produces a mixture of the following wastes: MEK, P.S. naphtha, ethyl alcohol, and small amounts of toluene. The waste has been designated as F005 and sent for reclamation to either Waste Resource and Recovery or Diaz. Last shipment to Waste Resources was 11/12/82. More recent shipments have been to Diaz. Revere generates, at most, 2000 gallons per month.

Nonhazardous wastes include a washwater containing water-based glue. This is picked up by United Sanitation and taken to the local landfill.

Pre-Transport

Revere Copper and Brass has interim status for storage but they always ship off-site within 90 days. They do not intend to become a TSD. This inspection was conducted for generation, with less than 90-day storage.

Personnel Training

Revere maintains a hazardous waste manual and once each year, supervisors are required to update all

employees on the contents of this booklet. The booklet covers handling / storage, training, and the emergency procedures. Job titles and duties are kept on each employee, but there is no documentation that the training has actually been given.

Preparedness and Prevention

Both the Newport and Diaz fire departments are familiar with the site. A primary authority has not been designated. No contact has been made with hospitals or emergency response contractors. Contingency plan has not been made available to local authorities.

Contingency Plan

The "Emergency Organization Plan" lists procedures used to notify plant personnel of an emergency. It also lists equipment types and how to use them. Emergency Coordinator is the shift foreman at the time of the accident. The contingency plan does not contain an evacuation plan, and should be updated to reflect conditions at plant at present.

8/2/82

TANKS CHECKLIST
(Subpart J - Tanks, 265.190)

Note: See
narrative
explanation
Attachment 2

NOTE: If multiple tanks exist, list each tank and specify compliance or non-compliance. Complete an individual checklist for each tank not in compliance and a collective checklist for those in compliance.

1. Are there any tanks which are not being used which the facility no longer plans to use? ___ Yes ☒
- a. If yes, has all hazardous waste and hazardous waste residue been removed from these tanks, discharge control equipment, and discharge confinement structures? ___ Yes ___
2. Are tanks presently used to treat or store waste? ☒ Yes ___
- a. If no, do not complete rest of form.
- b. If yes, check tanks.

3. Is there evidence that wastes placed in the tank are incompatible with the tank or liner? ___ Yes ☒
- tank was in good shape*

NOTE: Any evidence of ruptures, leaks or corrosion. (Use narrative explanations sheet.)

4. Are there any uncovered tanks? ___ Yes ☒
- a. If no, do not complete 4b.-e.
- b. If yes, do they have 2 feet (60cm) freeboard? ___ Yes ___
- or
- c. A containment structure? (e.g. dike or trench) or ___ Yes ___
- d. A drainage control system? ___ Yes ___
- or
- e. A diversion structure? (e.g. standby tank) ___ Yes ___
- (NOTE: The structure in c, d or e must have a capacity that equals or exceeds the volume of the top 2 feet (60 cm) of the tank.)

If the answers to 4b.-e. are "no", explain current conditions using narrative sheets.

5. Are any of the tanks continuous feed? ___ Yes ☒
- a. If yes, is it equipped with a means to stop inflow (e.g. waste feed cutoff or by-pass to a stand-by tank)? ___ Yes ___

Are ignitable or reactive wastes placed in tanks?

☒ Yes ☒ No ^{N/A}

- a. If yes, are they treated, rendered or mixed before or immediately after placement in the tank so it no longer meets the definition of ignitable or reactive?

☐ Yes ☒ No

OR

- b. Is the waste protected from sources of ignition or reaction?

☒ Yes ☐ No

1. If yes, use narrative explanations sheet to describe separation and confinement procedures. *tank segregated away from smoking areas*
2. If no, use narrative explanations sheet to describe sources of ignition or reaction

OR

- c. Is the tank used solely for emergencies?

☐ Yes ☒ No

12. Has the facility ever placed incompatible wastes in the tank?

no incompatible wastes on-site

☐ Yes ☒ No

- a. If yes, what were the results. (Use narrative explanations sheet). (Look for signs of mixing of incompatible wastes, e.g. fire, toxic mist, heat generation, bulging containers, etc.)

13. If a waste is to be placed in a tank that previously held an incompatible waste, was that tank washed? *no, has not been*

☐ Yes ☒ No ^{N/A}

- a. If yes, describe washing procedures (Use narrative explanation sheet.)

Describe how it is possible for incompatible wastes to be placed in the same tank. (Use narrative explanations sheet.)

Revere

AR0006351464

Attachment 2

Tanks

The waste solvents are placed in a portable tank (1000 gallons). The tank has a trailer with wheels. Diaz brings a tractor to Revere and hauls the tank over to the refinery across the street. The Arkansas inspector determined this to be a tank and completed the tank checklist.

Flammable placards are placed on the tank.
Accumulation dates are not noted on the tank.

Note: An additional portable tank on-site was placarded with the flammable signs. Flammable wastes are not placed in this tank.

Also, Revere has a gravity-setting sump system for waste oils, waste oils, and any dirt or other solids are put into the sump system and separated. Oil is sold to Diaz for use in their fuel program. The dirt is collected and

11)

Revere
Attachment 2
Cont'd.

piled in a depression on-site. "No smoking" signs
have been posted in this area. The oil has
not been tested for hazardous characteristics.

Revere
Attachment 3

As per Environmental Services policy, the following
is a summary of problems discussed with Company
officials:

1. no documentation that personnel training is
actually conducted.
2. Contingency plan should be updated.
3. Flammable stickers should be removed
from a tank that is not used for
flammable wastes.
4. No arrangements with local authorities.

for
#00000000

1
2
3

Reference 9

REVERE

COPPER AND BRASS INCORPORATED



May 18, 1983

File EPA

HIGHWAY 67
NEWPORT, ARK. 72112
Cable Address: REVERSCO—NEW YORK
301-323-2771

Mr. Mike Bates, Hazardous Waste Inspector
Compliance & Technical Assistance Branch
Department of Pollution Control & Ecology
8001 National Drive, P. O. Box 9583
Little Rock, Arkansas 72209

**Subject: Withdrawal of Part "A" Application for Treatment
Storage Interim Status**

**Reference: Letter from Mike Bates to W. O. Haynes dated
April 25th, 1983**

Dear Mr. Bates:

As discussed with you in our phone conversation of May 5th, 1983, we want to withdraw our Part "A" application for an interim status as a treater and storer of hazardous waste.

It is understood that since our waste, P005 and D001, are not stored for longer than 90 days that we do not require interim status as a storer.

In our telephone conversation, it was further agreed that the treatment facility for removing the oil (D001) from the spent filter media does not require a hazardous waste treatment permit as it is exempt under Section 261.6a of the RECRA rules.

Should the RECRA rules change, Revere will have 90 days to re-apply for the applicable hazardous waste permits. Revere, therefore, requests that our Part "A" application be withdrawn.

Should there be questions relating to any part of the above, please contact the undersigned.

Sincerely,

REVERE COPPER AND BRASS INCORPORATED
Foil Division

W. O. Haynes
W. O. Haynes
Engineering & Maintenance Mgr.

WOH/ag

2000

2000

Reference 10

1

1



STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY

8001 NATIONAL DRIVE, P.O. BOX 9583
LITTLE ROCK, ARKANSAS 72209

PHONE: (501) 562-7444

June 9, 1983

W.O. Haynes
Revere Copper and Brass, Inc.
Highway 67
Newport, Arkansas 72112

C.C. Mr Campbell
H. Singleton
R. Borden
M. Bingham
S. Kay

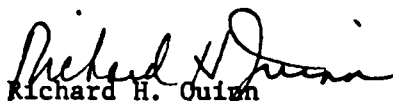
Dear Mr. Haynes:

Receipt is hereby acknowledged for your letter of May 18, 1983 requesting withdrawal of Part A of your RCRA permit.

Based on discussion with Mr. Bates, your request is approval. Records and files at this office have been revised to reflect your change of status to generator.

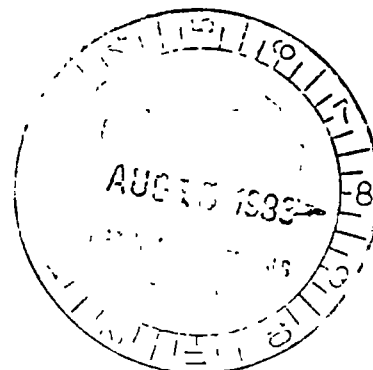
If you have any questions, please feel free to contact me.

Sincerely,


Richard H. Quinn
Permits Supervisor
Permits Branch

RHQ:cjh

REPT 10/1



10/10/2017

10/10/2017

Reference 11



STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
8001 NATIONAL DRIVE, P.O. BOX 9583
LITTLE ROCK, ARKANSAS 72209

PHONE: (501) 562-7444

August 4, 1989

CSN: 34-0010 Permit No. 907-A
Media: Air, Water, Solid, Hazardous
Sort: Permit, Compliance, Legal, Misc.

Mr. Bob Ritchie, General Manager
National Aluminum Corporation
Hwy 67 North
Newport, Arkansas 7112

RE: CSN 34-0010 Permit 907-A

Dear Mr. Ritchie:

On July 10, 1989, I performed a routine inspection of your facility pursuant to the Arkansas Water and Air Pollution Control Act; Federal Clean Air Act and the regulations promulgated thereunder. The inspection revealed that you are in compliance with your permit.

If I can be of assistance, please feel free to contact me.

Sincerely,

David E. Channell
District Field Inspector
Environmental Field Services

DEC:jw

Arkansas Air Inspection Form

CSN: 340010 Permit No. 907-A
Media: Air, Water, Solid, Hazardous
Sort: Permit, Compliance, Legal, Misc.

General Information

Date of Inspection 10 July 89
Time In: 1230 Time Out: 1615
Company Name National Aluminum Corp CSN 340010
Address Hwy 67 North
City or Town Newport County Jackson
Mailing Address Hwy 67 North
Newport, AR 72112
Type of Industry Rolling and Finishing Mill
Type of Inspection (circle): (SIP) NSPS, PSD, Complaint, NESHAP
NSPS Applicable Subpart N/A
Permit Number(s) 907-A

Company Personnel	Name	Title	Phone
Responsible for Facility	<u>Bob Ritchie</u>	<u>Gen. Mgr</u>	<u>(501) 523-2771</u>
Responsible for Environmental Matters	<u>Nick Singleton</u>	<u>Tech. Mgr</u>	<u>"</u>
Company Personnel Contacted	<u>Greg Janstki</u>	<u>Lab. Supv</u>	<u>"</u>
	<u>Michael Henderson</u>	<u>chemist</u>	<u>"</u>

Plant Location: Commercial _____ Residential _____ Industrial ✓
Normal Operation Schedule:
24 hrs./day 7 days/wk. 50 wks./yrs.
Production Rate at Time of Inspection: Not determined
Maximum Design Capacity: information not available at time of inspection.

DATE OF INSPECTION 10 July 89

PRE INSPECTION CHECKLIST

NSPS Application Subpart N/A
SIP Permit Number 90-A

PSD Permit Number N/A

Is source required to keep records? ☒ YES ☐ NO
If so what record?

Annual Solvent Usage - max 297000 gal/yr
" Coating " - " 92000 gal/yr
" rolling mill " - " 2400 gal/yr

Which of the following sections of the inspection form is applicable for the facility you are going to inspect:

Continuous Emissions Monitors _____
Fossil-Fuel-Fired Boiler _____
Coal Preparation Plant _____
Asphalt Plant _____
Incinerator _____
VOC Storage _____
Kraft Pulp Mill _____
Other rolling mill exhaust

What sources or emission points at the facility are subject to NSPS?

N/A

What source or emission points are subject to PSD?

N/A

What sources or emission points are subject to SIP?

82" rolling mills - # 1, 2, 3 walverine laminator
44" " " # 1, 2, 3, 4, 5 No 3
Not color Machine Total Rate Coater/Slitter
Wimper + Laminator Scimitar Coater
Total Rate "

INSPECTOR'S SUMMARY

Comments and Recommendations:

This facility processes coils of aluminum into varying thicknesses of aluminum foils. These foils are then either laminated or coated according to the customer's orders and specifications.

The inspection revealed a very clean well maintained operation. No fugitive emissions were seen. Records kept according to special conditions No 2 & No 3 in the permit were as follows:

Annual solvent usage - 25,000 gal/yr

" coating " - 66,500 gal/yr

" rolling oil " - 1886 ton/yr

A visual emissions reading was taken on the wet color margin. Although it is not required by the permit, all readings were 0% opacity.

I found the facility to be in compliance

Compliance Status (Write In, Out, Unk., N/A): in Air Code, in SIP, N/A NSPS

N/A PSD, N/A NESHAP

Next Inspection Date: as needed

Inspector's Signature James E. Channell

Control Equipment

Source	Type	Parameters		
		Pressure Drop (A)	GPM (B) *	ACFM (C)
Net Color Machine	Cyclone	No info.	—	No info
Newport Laminator	"	"	—	"
IntraPhoto Laminator	"	"	—	"
No. 3 Laminator	"	"	—	"
Wolverine Laminator	"	"	—	"
Schmaltz coater	"	"	—	"
Intra Photo coater/Laminator	"	"	—	"

- Footnotes (1) Cyclone (a)(c)
 (2) Egnouse (a)(c)
 (3) Scrubbers (a)(b)(c)
 (4) ESP (c)
 (5) Water Spray (b)

*Water flow rate

Are there any uncontrolled sources located at the facility? yes ☒ no

If yes, list them.

VISIBLE EMISSION OBSERVATION FOR

No

COMPANY NAME <i>Nat'l. Al. Corp.</i>		
STREET ADDRESS <i>Hwy 67 North</i>		
CITY <i>Newport</i>	STATE <i>Ar</i>	ZIP <i>72112</i>
PHONE (KEY CONTACT) <i>(501) 523-2771</i>	SOURCE ID NUMBER <i>9,12,13, 77, 59</i>	
PROCESS EQUIPMENT <i>Net Color Machine</i>	OPERATING MODE <i>100%</i>	
CONTROL EQUIPMENT <i>Cyclone</i>	OPERATING MODE <i>100%</i>	

DESCRIBE EMISSION POINT <i>Exhaust Hst from cyclone</i>	
HEIGHT ABOVE GROUND LEVEL <i>40'</i>	HEIGHT RELATIVE TO OBSERVER Start <i>40'</i> End <i>40'</i>
DISTANCE FROM OBSERVER Start <i>200'</i> End <i>200'</i>	DIRECTION FROM OBSERVER Start <i>East</i> End <i>East</i>

DESCRIBE EMISSIONS	
Start <i>None</i>	End <i>None</i>
EMISSION COLOR	IF WATER DROPLET PLUME
Start <i>None</i> End <i>None</i>	Attached <input type="checkbox"/> <i>N/A</i> Detached <input type="checkbox"/>
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED	
Start <i>2' from duct</i>	End <i>same</i>

DESCRIBE PLUME BACKGROUND	
Start <i>P.C. sky</i>	End <i>same</i>
BACKGROUND COLOR	SKY CONDITIONS
Start <i>Blue</i> End <i>Blue</i>	Start <i>P.C.</i> End <i>P.C.</i>
WIND SPEED	WIND DIRECTION
Start <i>5-10 mph</i> End <i>same</i>	Start <i>SW</i> End <i>SW</i>
AMBIENT TEMP	WET BULB TEMP
Start <i>90°F</i> End <i>90°F</i>	

Luck 1th 2th 3th 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th 14th 15th 16th 17th 18th 19th 20th 21th 22th 23th 24th 25th 26th 27th 28th 29th 30th	SOURCE LAYOUT SKETCH
---	--------------------------

OBSERVATION DATE			START TIME		END TIME
10 July 89			1545		1551
SEC MIN	0	15	30	45	COMMENTS
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0				
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT) <i>David E. Chenev</i>	
OBSERVER'S SIGNATURE <i>David E. Chenev</i>	DATE <i>10 July 89</i>
ORGANIZATION <i>ADPC-15</i>	
CERTIFIED BY <i>ATPC-15</i>	DATE <i>Apr. 1 89</i>
CONTINUED ON VEO FORM NUMBER	

Maintenance of Control Equipment:

(1) Does facility maintain a maintenance program for control equipment?

☒ yes ☐ no

(2) How often is control equipment checked and by whom? Variable according to type of equipment. Preventative Maint. Program by Maint. Dept.

(3) Are records kept on maintenance of control equipment? ☒ yes ☐ no

(If yes, ask to see records)

Upsets

Have there been any upsets within the last 3 months which caused emissions above the allowable limits or odors to escape into the ambient air? yes ☐

no ☒ Was upset reported to Agency? ☐ yes ☐ no N/A

Have there been any changes or modifications in plant's process or operation since the last air inspection?

☐ yes ☒ no If yes, list date and type of change.

Boiler Information

Source ID	Fuel Used	% Sulfur	% Ash	% Moisture	Design Capacity BTU or lbs/hr Steam
			<u>N/A</u>		

12

13

Reference 12

STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
8001 NATIONAL DRIVE, P.O. BOX 9583
LITTLE ROCK, ARKANSAS 72209
PHONE: (501) 562-7444

March 30, 1990

Mr. Bob Ritchie
General Manager
Norandal USA, Inc.
P.O. Box 1748
Newport, Arkansas 72112

Re: CSN:34-0010 Permit Number:907-AR-1

Dear Mr. Ritchie:

On March 14, 1990, I performed a routine inspection of your facility pursuant to the Arkansas Water and Air Pollution Control Act; Federal Clean Water Act and the regulations promulgated thereunder. The inspection revealed that you are in compliance with your permit.

If I can be of assistance, please feel free to contact me.

Sincerely,

D. Channell

DC

David Channell
Inspector, Air Division

DC/pms

1123

5822

ARKANSAS AIR INSPECTION FORM

CSN 740010 PERMIT NO 907-AR
Media: Air Sort: ComplianceDate of Inspection 14 March 90 Time In 1000 Time Out 1130Company Name Woodward USA, IncAddress Hwy 67 NorthMailing Address (if different) PO Box 1748Newport Ar 72112

Company Personnel	Name	Title	Phone
Plant Manager/Officer	Bob Ritchie	Gen Mgr	(501) 523 2771
Environmental Manager	Mike Singleton	Tech Mgr	"
Personnel Contacted	Mike Henderson	Enviro. Spt	"
	Greg Janski	QC Supv	"

Type of Inspection (circle): (SIP) NSPS, PSD, NESHAP, ComplaintNSPS Applicable Subpart N/A Required to keep records? Yes NoIf yes, what records? Solvent & coating usage and rolling & useSIP Permit Number(s) 907-AR-1

PSD Permit Number(s) _____

Which additional sections are applicable for this inspection:

Continuous Emissions Monitors _____
 Fossil Fuel Fired Boiler _____
 Coal Preparation Plant _____
 Asphalt Plant _____
 Incinerator _____
 VOC Storage in barrels _____
 Kraft Pulp Mill _____
 Other roller mill exhaust _____

What sources or emission points at the facility are subject to NSPS?

N/A

What sources or emission points at the facility are subject to PSD?

N/A

What sources or emission points at the facility are subject to SIP?

See Table T attached

Plant location: Commercial Residential Industrial

Operational Schedule: 24 7 5
 hours/day days/week weeks/year

Production Rate: this date- not determined

max design- not determined

Maintenance of Control Equipment:

Does facility maintain a program for control equipment? Yes/No

How often is control equipment checked and by whom? Daily check by ops. etc.
also a weekly + monthly P.M. program by maintenance dept

Are records kept on maintenance of control equipment? Yes/No

If yes, ask to see records.

Upsets: Have there been any upsets within the last three months which caused emissions above the allowable limits or odors to escape into the ambient air? Yes No Was upset reported to ADPC&E? Yes/No N/A

Have there been any changes or modifications in plant's process or operation since the last air inspection? Yes No

If yes, list and describe in comments section.

Are there any uncontrolled sources located at the facility? Yes No

If yes, list sources.

CONTROL EQUIPMENT:

See attached list		PARAMETERS		
Source(No)	Type	Pressure Drop(A)	GPM(B)	ACFM(C)
SN (12, 13, 37)	Cyclones	no info	—	no a/c
SN 58	"	"	—	"
SN (24, 10)	"	"	—	"
SN (27, 11)	"	"	—	"
SN 55	"	"	—	"
SN 56	"	"	—	"
SN (12, 03)	"	"	—	"
SN (49, 51, 53)	"	"	—	"
SN (25, 26, 27)	"	"	—	"
SN (28, 29)	"	"	—	"

If additional space needed use back of this page.

- Footnotes:
- (1) Cyclone (A) & (C)
 - (2) Baghouse (A) & (C)
 - (3) Scrubber (A), (B) & (C)
 - (4) ESP (C)
 - (5) Water Spray (B)

BOILER INFORMATION:

N/A

Source ID	Fuel Used	% Sulfur	% Ash	% Moisture	Design Capacity BTU or lbs/hr steam	

ESP PARAMETERS: *N/A*

Manufacture _____

Type _____ % Efficiency _____ %

Design Sulfur Range _____ % Design Ash Content _____ %

Design Heating Value _____ % No. Fields _____ No. T-R Sets _____

Fly Ash: Total Collected _____ tons/year
Disposal Method _____

Bottom Ash: Total Collected _____ tons/year
Disposal Method _____

T-R Set No.	Primary		Secondary		Spark Rate
	Amps	Volts	Amps	Volts	Sparks/Min
			<i>N/A</i>		

If additional space needed use back of this page.

WET SCRUBBER: *N/A*

Does the source measure the water flow going to the scrubber (injection) or after it has left the scrubber (discharge)? Or not measured? Circle one

If Venturi scrubber is used, what is the throat control setting? _____

Scrubber Discharge Color _____ Is oil present? Yes/No

Is water turbid? Yes/No Is water recycled? Yes/No

What is scrubber water discharged into? Pond, Stream, River, Ditch, Sewer

VISIBLE EMISSION OBSERVATION FORM

No.

COMPANY NAME		
STREET ADDRESS		
CITY		
STATE	ZIP	
PHONE (KEY CONTACT)	SOURCE ID NUMBER	

PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE

DESCRIBE EMISSION POINT	
HEIGHT ABOVE GROUND LEVEL	
HEIGHT RELATIVE TO OBSERVER	
Start	End
DISTANCE FROM OBSERVER	
Start	End
DIRECTION FROM OBSERVER	
Start	End

DESCRIBE EMISSIONS	
Start	End
EMISSION COLOR	
Start	End
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED	
Start	End

DESCRIBE PLUME BACKGROUND	
Start	End
BACKGROUND COLOR	
Start	End
WIND SPEED	
Start	End
WIND DIRECTION	
Start	End
AMBIENT TEMP	
Start	End
WET BULB TEMP	
RH. percent	

<p>Stack with Plume</p> <p>Sun</p> <p>Wind</p>	<p>SOURCE LAYOUT SKETCH</p> <p>Draw North Arrow</p>
--	---

OBSERVATION DATE		START TIME		END TIME	
SEC	MIN	0	15	30	45
COMMENTS					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT)	
OBSERVER'S SIGNATURE	DATE
ORGANIZATION	
CERTIFIED BY	DATE

ADDITIONAL INFORMATION

INSPECTOR COMMENTS, EXPLANATIONS, SUMMARY:

This facility processes coils of aluminum into varying thicknesses of aluminum foils. These foils are then either laminated or coated according to the customer's orders.

Mr. Nick Singleton took me through the plant for my inspection. The facility was clean and well maintained. All exhaust hoods were well placed and in good working order. No V/E test was performed; no emissions were seen. Attached is a copy of the facility's Annual V.O.C. emissions report as required by the permit.

There have been no changes to control equipment since the inspection on 10 July 89.

I have marked this facility in compliance.

Compliance Status (In, Out, Ukn, N/A) IN Air Code IN SIP N/A NSPS

N/A PSD N/A NESHAP

Next Inspection Date FY 91

Inspector's Signature Don E. Chinnell

TABLE I

SOURCE	SN	EMISSION RATE
Net Color Machine	12 13 37 59 09	**
Newport Laminator	58	**
IntaRoto Laminator	04 10	**
No. 3 Laminator	07 11	**
IntaRoto Coater/Slitter	55	**
Schmutz Coater	56	**
Wolverine Laminator	02 03	**
82" Rolling Mill #1	53	*
82" Rolling Mill #2	51	*
82" Rolling Mill #3	49	*
44" Rolling Mill #1	25	*
44" Rolling Mill #2	26	*
44" Rolling Mill #3	27	*
44" Rolling Mill #4	28	*
44" Rolling Mill #5	29	*

**See Specific Condition No. 3

*See Specific Condition No. 5

ANNUAL ROLLING OIL USAGE 1989

Norpar 12	304,693 Gals.	953.69 Tons/Yr
Kerosene	143,016 Gals.	489.11 Tons/Yr
Mineral Spirits - Rule 66	186,758 Gals.	612.57 Tons/Yr
BA-41/BT-45	24,780 Gals.	86.48 Tons/Yr
Total Rolling Oil	659,247 Gals.	2141.85 Tons/Yr
USED Rolling Oil Sold		420.04 Tons/Yr
Net Rolling Oil Usage		<u>1721.81 Tons/Yr</u>

ANNUAL SOLVENT & COATING USAGE 1989

Dulutant Solvent:	MEK	68,214 Gals.
	IPA	30,507 Gals.
	Ethanol	67,068 Gals.
Coating		88,654 Gals.
Total Solvent & Coating		254,443 Gals.
Less Hazardous Waste Shipments		8,990 Gals.
Net Solvent & Coating Usage		<u>245,453 Gals.</u>

Reference 13

GROUND-WATER LEVELS IN THE ALLUVIAL AQUIFER

IN EASTERN ARKANSAS, 1986

U.S. GEOLOGICAL SURVEY

Open-File Report 87-545



Prepared in cooperation with the
ARKANSAS SOIL AND WATER CONSERVATION COMMISSION,
the U.S. SOIL CONSERVATION SERVICE and
LOCAL CONSERVATION DISTRICTS

CONTENTS

	Page
Abstract.....	1
Introduction.....	2
Description of table.....	4
Well-numbering system.....	5
Selected references.....	7

FIGURES

1. Map showing location of study area.....	3
2. Diagram showing well-numbering system.....	6

TABLE

Table 1. Water levels in wells completed in the alluvial aquifer, spring 1986 and fall 1986.....	8
---	---

INTRODUCTION

The Mississippi Alluvial Plain of eastern Arkansas (fig. 1) is a predominantly agricultural part of the State that relies on ground water for irrigation. The principal source of freshwater is from an aquifer (a water-bearing layer of sediment that will yield water in a usable quantity to a well or spring) contained in alluvial sediments of Quaternary age. Holland and Ludwig (1981) reported that approximately 3.4 billion gallons of water per day were removed from alluvial deposits in 1980, most of which were used for rice irrigation. The aquifer is called the Mississippi River Valley alluvial aquifer, henceforth referred to as the alluvial aquifer.

This report was prepared as part of the East Arkansas Water Conservation Project, a cooperative effort with the Arkansas Soil and Water Conservation Commission (ASWCC), the U.S. Soil Conservation Service (SCS), and local Conservation Districts to conduct studies that would help further define the hydrologic characteristics of the alluvial aquifer. The U.S. Geological Survey has maintained a network of monitor wells in the alluvial aquifer in eastern Arkansas in cooperation with the Arkansas Geological Commission and has monitored the water levels each spring prior to the pumping season for several years. Recent reports containing these water-level data include: Edds (1981, 1982, 1983, 1984), Edds and Fitzpatrick (1984), Edds and Spencer (1985), Edds and Remsing (1986), and Freiwald and Plafcan (1987). In 1984 (Plafcan, 1985), this network was enhanced by a network of monitor wells in the alluvial aquifer measured by district Soil Conservation Service personnel with technical advice and coordination provided by the Geological Survey.

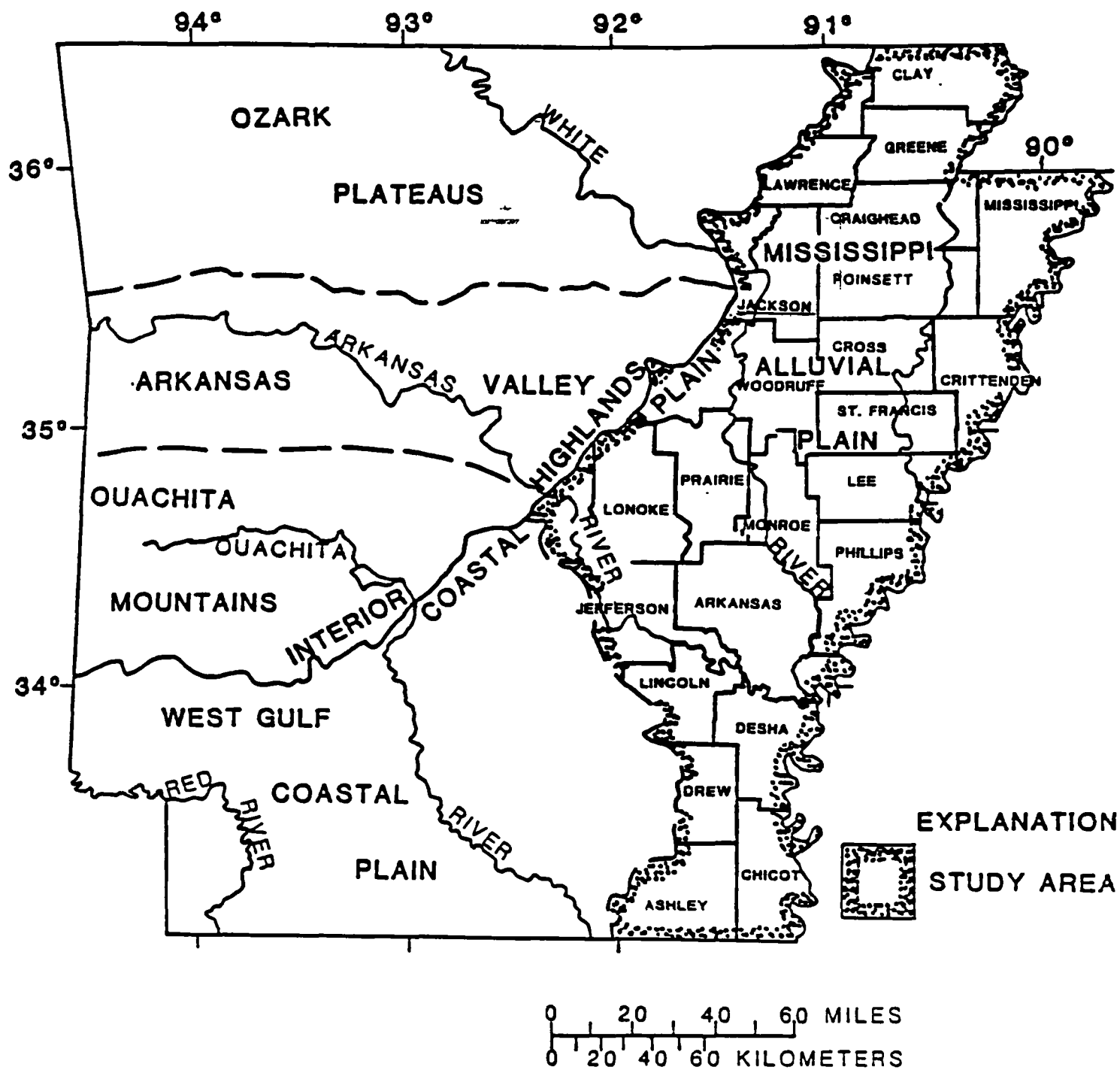


Figure 1.--Location of study area.

TABLE 1.--WATER LEVELS IN WELLS COMPLETED IN THE ALLUVIAL AQUIFER, SPRING 1986 AND FALL 1986--CONTINUED

LOCATION	LAND OWNER	ALTITUDE OF LAND SURFACE (FEET ABOVE SEA LEVEL)	SPRING 1986		ALTITUDE OF WATER LEVEL (FEET)	FALL 1986		ALTITUDE OF WATER LEVEL (FEET)	NET CHANGE (FEET)
			DEPTH TO WATER BELOW LAND SURFACE			DEPTH TO WATER BELOW LAND SURFACE			
			FEET	DATE		FEET	DATE		
JACKSON COUNTY--CONTINUED									
10N01W04	Neeley	225	39.6	-----	185.4	42.4	10-	182.6	-2.8
10N01W05	McCartney	227	32.8	-----	194.2	34.6	10-	192.4	-1.8
10N01W10A	Johnson	220	41.2	-----	178.8	44.7	10-	175.3	-3.5
10N01W14C	Winemiller	228	48.0	03-	180.0	51.0	09-16	177.0	-3.0
10N01W27A	Kieffer	225	43.0	04-	182.0	46.0	10-	179.0	-3.0
10N02W29	Kent	226	17.0	03-	209.0	19.0	09-18	207.0	-2.0
10N03W11	Turner	214	5.0	04-	209.0	10.0	10-	204.0	-5.0
10N03W30DC	Falwell	222	22.0	04-	200.0	26.0	10-	196.0	-4.0
10N03W34C	West Weldon	209	11.0	04-	198.0	18.0	10-30	191.0	-7.0
11N01W25B	Davis	231	50.7	-----	180.3	53.3	10-	177.7	-2.6
11N02W02D	Hare	235	24.5	03-	210.5	26.0	10-30	209.0	-1.5
11N02W09	Doyle	233	21.5	03-	211.5	24.2	10-	208.8	-2.7
11N02W23D	Huey	226	19.0	-----	207.0	20.4	10-	205.6	-1.4
11N03W05B	Haigwood	227	17.0	04-	210.0	16.0	09-16	211.0	1.0
11N03W18C	Rutledge	218	9.8	-----	208.2	17.5	10-	200.5	-7.7
12N01W11B	Edwards	233	23.3	-----	209.7	25.9	10-	207.1	-2.6
12N01W14BC	Phillips	233	26.9	03-	206.1	27.0	10-07	206.0	- .1
12N01W30C	Coleman	232	-----	-----	-----	-----	-----	-----	---
12N01W30C	Coleman	230	19.5	03-	210.5	22.0	10-07	208.0	-2.5
12N01W36	Lofton	236	38.5	03-	197.5	40.4	10-	195.6	-1.9
12N02W19C	Hodges	230	9.6	04-	220.4	12.0	09-18	218.0	-2.4
13N01E18D	Denton	234	29.5	04-	204.5	34.0	09-18	200.0	-4.5
13N01W23B	Thomas	243	29.1	-----	213.9	33.6	10-	209.4	-4.5
13N02W10C	Baughn	247	16.5	03-	230.5	18.0	09-18	229.0	-1.5
13N02W22	Holden-Conner	240	13.3	-----	226.7	15.0	10-	225.0	-1.7

20

21

Reference 14

Water Resources of Jackson and Independence Counties, Arkansas

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1839-G

*Prepared in cooperation with the
Arkansas Geological Commission*



CONTENTS

	Page
Abstract.....	G1
Introduction.....	1
Purpose.....	1
Acknowledgments.....	2
Description of the area.....	2
Physiography.....	2
Geology.....	3
Availability of water.....	7
Ground water.....	7
Coastal Plain province.....	7
Ozark Plateaus and Ouachita provinces.....	13
Chemical quality of ground water.....	16
Surface water.....	18
Low-flow frequency.....	19
Flow duration.....	22
Floods.....	22
Chemical quality of surface water.....	23
Use of water.....	23
Selected references.....	28

ILLUSTRATIONS

	Page
PLATE 1. Map showing location of data-collection points, and depth to base of alluvium.....	In pocket
2. Maps showing water-table contours, spring 1964 and spring 1965.....	In pocket
3. Map showing approximate area inundated by 10-year and 50-year floods at Batesville.....	In pocket
FIGURE 1. Map showing location and physiography of report area.....	G2
2. Generalized geologic map.....	4
3. Hydrographs of wells in Jackson County.....	9
4. Hydrograph of well at Newport Air Base, Jackson County.....	10
5. Hydrographs showing relation between ground water, surface water, and precipitation near Newport.....	11
6. Graph showing time-distance-drawdown relationship.....	12
7. Sketch showing location-numbering system.....	14

TABLES

	Page
TABLE 1. Generalized geologic column.....	G5
2. Chemical analyses of water from representative wells.....	17
3. Frequency of low flows and duration of daily flows.....	20
4. Low-flow characteristics of streams in Jackson and Independence Counties.....	21
5. Flood frequency of White River at Batesville.....	23
6. Chemical analyses of daily samples from White River at Newport.....	24
7. Daily water temperature of White River at Newport.....	26
8. Chemical analyses of water from selected streams.....	27
9. Use of water.....	28

CONTRIBUTIO

WATER RESO

By DONALD

The present (1
55.6 million galls
are available.
irrigation—can b
in the highlands

Wells in the C
when screened :
Quaternary age
and the reductio
Wells in the h
water that is of

The dependal
gallons per day
the White River
from 0.25 to 5
at Batesville
utilized for wat
in the Boston
very low flow o
can be obtained
from all the h
generally is ha

The U.S.
Geological C
resources inv
was begun in
determine the
and domestic

feasibility of alternate solutions to water problems, and (3) provide information to guide the future development and management of the water resources of the two counties. This report outlines the results of that work.

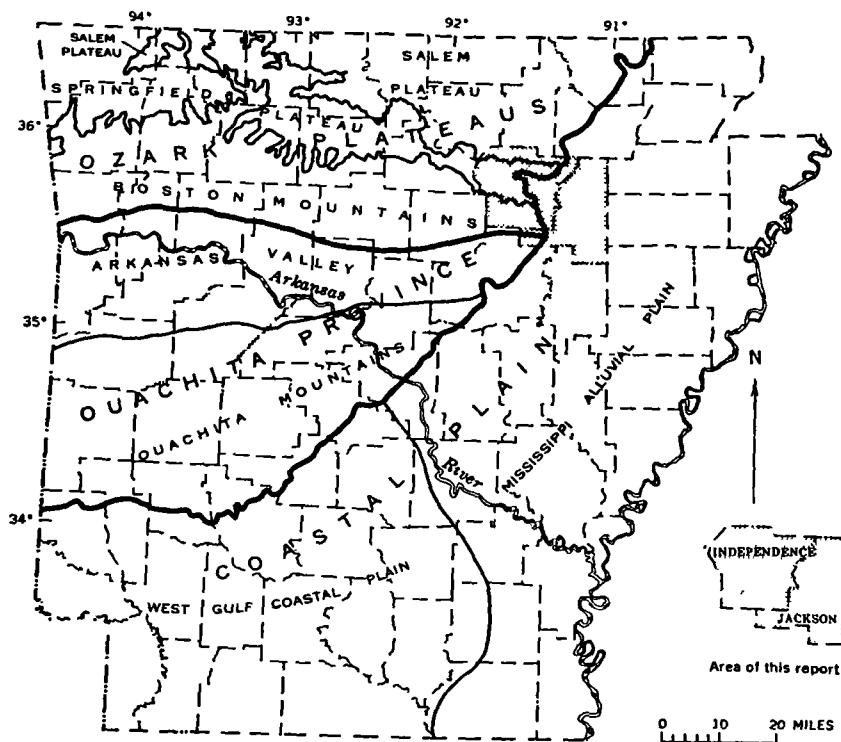
ACKNOWLEDGMENTS

The authors thank all those persons who supplied information during the course of this project—especially the members of the Arkansas Geological Commission, who gave freely of their time and knowledge during geologic discussions and fieldwork.

DESCRIPTION OF THE AREA

PHYSIOGRAPHY

Jackson and Independence Counties constitute an area of about 1,400 square miles in northeast Arkansas (fig. 1). Most of Jackson



EXPLANATION

Physiographic province boundary
Physiographic section boundary

FIGURE 1.—Location and physiography of Jackson and Independence Counties, Ark.

County and the valley of the White River from the vicinity of Batesville eastward are in the Mississippi Alluvial Plain section of the Coastal Plain province. This area is nearly flat; local relief seldom exceeds 20 feet. Land-surface altitudes generally range from 250 feet above sea level in the northern part of Jackson County and in the White River valley east of Batesville to 220 feet in southern Jackson County—a southward slope of about 1 foot per mile. Because of the flat terrain, streams in the area are sluggish and runoff is slow. However, the slow runoff aids recharge of the ground-water reservoir.

Most of Independence County, and a small part of southwestern Jackson County, is in the Ozark Plateaus province, which comprises the Boston Mountains, Springfield Plateau, and Salem Plateau sections. The southwest corner of Jackson County is in the Arkansas Valley section of the Ouachita province. The part of the report area in these provinces is hilly and is characterized by dissected plateau surfaces and steep-sided sinuous stream valleys. Land-surface altitudes generally are about 1,000 feet above sea level in the Boston Mountains, between 500 and 700 feet in the Springfield and Salem Plateaus, and less than 300 feet in the valley of the White River. The highest point in the report area, 1,128 feet above sea level, is in the Boston Mountains section on Round Mountain about 10 miles west-southwest of Batesville. Streams in this hilly area have gradients as high as 25 feet per mile in their upper courses, and runoff is fast. The White River descends about 2 feet per mile in Independence County, and its major tributaries have gradients of 5–10 feet per mile.

GEOLOGY

The characteristics of the rocks underlying an area greatly control the availability of water in that area. Where the surface rocks are permeable, some precipitation infiltrates to temporary storage in the ground. The stored water can be recovered from wells, springs, or streams. In areas where the surface rocks are of low permeability, the infiltration of precipitation is impeded, runoff is fast, and little recoverable water is stored in the rocks; therefore, well yields are small, and springs and streams cease to flow during dry spells. Dependable large-scale water supplies can be obtained in these areas only by construction of artificial storage reservoirs.

The rocks in Jackson and Independence Counties are of two general types—hard consolidated rocks of Paleozoic age that crop out in the Ozark Plateaus and Ouachita provinces, and unconsolidated deposits of Mesozoic and Cenozoic age that crop out in the Coastal Plain province. The rocks are described in table 1, and a generalized geologic map is shown in figure 2. The principal water-bearing formations are discussed in the next section of this report.

The Coastal Plain extends up the White River to a few miles beyond Batesville. Data from test holes augered at the locations shown on plate 1 indicate that the general pattern of increasing coarseness of the alluvium with depth is maintained to the upstream boundary of the Coastal Plain. However, the thickness of the alluvium in the Batesville area probably does not exceed 50 feet.

Water levels were measured periodically in 16 wells (pl. 1) screened in the alluvium. The measurements show that water levels in these wells average about 20 feet below land surface and fluctuate about 10 feet. The fluctuations result primarily from changes in the rate at which water is released from or taken into storage in the aquifer. Plate 2 shows the configuration of the water table in spring 1964 and in spring 1965. Figures 3 and 4 are hydrographs of four wells screened in the alluvium, and figure 5 shows the relation of one of these wells to fluctuations of the White River and to precipitation at Newport.

The maps and hydrographs indicate that most of the recharge to the alluvial aquifer is in an area extending northward through central Jackson County. This area is a divide from which ground water moves southwestward toward the White River and southeastward toward discharge points outside the county. The water levels fluctuate in response to precipitation and irrigation pumpage, but do not decline continuously because of pumpage.

A pumping test was made of the alluvial aquifer in December 1964 using the public-supply well at the Newport Air Base. The well was pumped for 24 hours at a rate of 150 gpm (gallons per minute), and water-level drawdowns were measured in observation wells 157 and 203 feet from the pumping well. Results of the test show that the coefficients of transmissibility and storage of the aquifer in the Newport area are about 75,000 gpd per ft (gallons per day per foot) and 0.07, respectively. These values have been used to construct figure 6, which shows the amount of drawdown at various distances from a pumping well that will be caused by a steady pumping rate of 1,500 gpm, if there is no recharge. For instance, the drawdown 100 feet from a well pumping 1,500 gpm continuously for 10 days will be about 13.5 feet, and water levels as much as 1,200 feet away will be affected. Although yields of 1,500 gpm are within the capability of many wells screened in the alluvium, such high-yield wells should be at least 1,000 feet apart.

The spacing between irrigation or other high-yield wells depends greatly on the number of wells in a given area. In general, the greater the distance between wells the better. If there are only two or three wells per section (square mile), they can be spaced as closely as 1,000 feet, and additional wells can be drilled. Additional wells

can be drilled in most of the Coastal Plain part of Jackson and Independence Counties without danger of dewatering the alluvium. However, if wells become so numerous that there are four or five per section in most of the sections in a township, spacing must be carefully considered and additional wells drilled only after thorough investigation of the possible interference effects. Areas where spacing should be carefully considered are as follows: The northwest and southwest corners of T. 11 N., R. 3 W.; the north half of T. 11 N., R. 2 W.; the southeast corner of T. 12 N., R. 2 W.; and the area east of State Highway 37 from Beedeville to Grubbs.

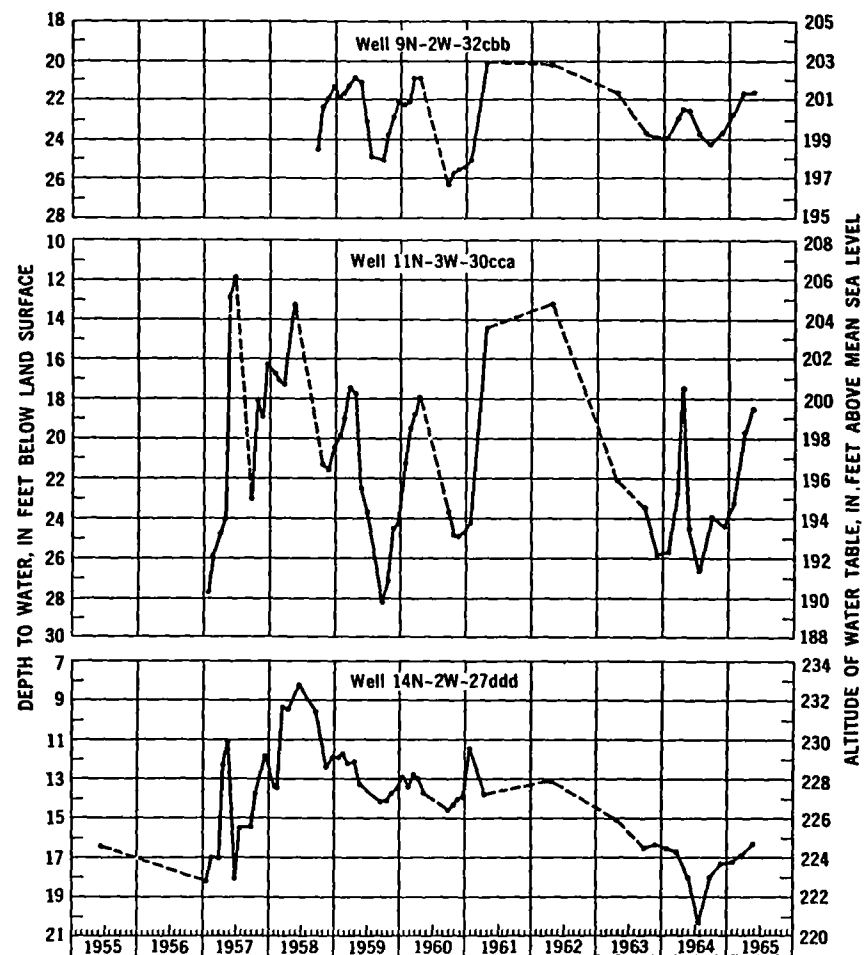


FIGURE 3.—Water levels in wells screened in deposits of Quaternary age, Jackson County, Ark.

Reference 15

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: June 28, 1990

TIME: 11:05 pm

TO: Randy Chalpecka, County
Agent
Cooperative Extension
Services
(501)523-6594

FROM: Trudy K. Tannen *duke*
ICF Technology
(214)744-1641

SUBJECT: Land and Water Uses in Jackson County

SUMMARY OF COMMUNICATION

Most of the land is used for agriculture in the form of food crops. The crops are soybeans, rice, wheat, corn, and sorghum. Very little livestock raising is done.

Well water is used for most purposes much more than surface water. There is some use of surface water for recreation (fishing, etc.) and irrigation, but most irrigation is done with ground water.

The nearest well to the Norandal plant, to the best of Randy Chalpecka's knowledge, is the Holden-Connor Farms well on Highway 18 a few miles out of Newport.

10-10-10

10-10-10

Reference 16

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: June 28, 1990

TIME: 1:10 pm

TO: Steve Jacks
Soil Conservation Service
Newport, AR
(501)523-2201

FROM: Trudy K. Tannen *TKT*
ICF Technology
(214)744-1641

SUBJECT: Flood Potential of Norandal Plant Site

SUMMARY OF COMMUNICATION

The plant site itself is not prone to flooding, but nearby Village Creek is perhaps the largest wetlands area in the county. The plant site, however, does not have wetlands characteristics.

The site area is predominantly industrial; not much farming is done in the area.

He will send a flood map for the areas.

Reference 17

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: June 25, 1990

TIME: 3:35 pm

TO: David Sherman
Water Company
Newport, AR
(501)523-5847

FROM: Trudy K. Tannen *TKT*
ICF Technology
(214)744-1641

SUBJECT: Water Supply for the City of Newport

SUMMARY OF COMMUNICATION

The city uses water from five wells, 90 feet deep. The wells are located close together on the same lot. The wells have 12.75 inch overall diameter with a 12 inch inner diameter. Each well has a 30 foot stainless steel strainer and a 20 inch head case. The wells are grouted and have a concrete base. All the wells are of the same design except for one with a submergible pump located across the lake about 300 feet from the plant.

Mr. Sherman believes the wells are 221 feet above sea level, but could not find the latitude and longitude. He will attempt to find them and send the information to me.

1989 WATER-USE REGISTRATION FORM

1. Name of Facility NEWPORT WATERWORKS

2. Water-user Id. # 30826

3. Use of water: (check one)

WS - Public Supply Use <u>X</u>	PF - Fossil Fuel Power <u> </u>
CO - Commercial Use <u> </u>	PG - Geothermal Power <u> </u>
IN - Industrial Use <u> </u>	PN - Nuclear Energy Power <u> </u>
MI - Mining <u> </u>	PH - Hydroelectric Power <u> </u>

4. SIC Code (1) 4241 (2) (3)

5. Permit# or PWS# 264 6. Telephone Number () 523-5847

7. Location of Facility: Latitude 353615 Longitude 0911630

8. Hydrologic Unit Code 11010013

9. Address P.O. BOX 519

10. City NEWPORT 11. ZIP Code 72112

**** COMPLETE 12-16 FOR PUBLIC WATER SUPPLY FACILITIES ONLY ****

12. Total Ground & Surface water withdrawals (MILLION GALS) 322

13. Water Purchased From Other Facilities (Amount in MILLION GALS.):

Facility Name <u> </u>	Amount: <u> </u>
-----------------------------	-----------------------

14. Water Sold To Other Facilities (Amount in MILLION GALS.):

Facility Name <u>31122 DIAZ WATERWORKS</u>	Amount: <u>46</u>
Facility Name <u>31123 JACKSONPORT WATERWORKS</u>	Amount: <u>2</u>
Facility Name <u>Amerson Lumber Corp</u>	Amount: <u>9</u>

15. Water Used For Facility Maintenance (backflushing, plant operation losses due to seepage and leaks - MILLION GALS.) 7

16. Domestic Population Served 8249

17. Deliveries to Users (Do not include water sold to other facilities)

Water Furnished To:	Total Water Delivered	Number of Connection
Domestic Households	<u> </u>	<u> </u>
Commercial	<u> </u>	<u> </u>
Industrial	<u> </u>	<u> </u>
Mining	<u> </u>	<u> </u>
Agriculture	<u> </u>	<u> </u>
Irrigation	<u> </u>	<u> </u>

18. Current Rate Structure:

DAVID SHERMAN 02/15/20 067 JACKSON
(Name of Plant Manager) (Date) (County of Diversion)

1988 NON-AGRICULTURE/NON-IRRIGATION WATER-USE REGISTRATION FORM

1. Name of Facility NEWPORT WATERWORKS

2. Water-user Id. # 30826

3. Use of water: (check one)

WS - Public Supply Use X PF - Fossil Fuel Power

CO - Commercial Use PG - Geothermal Power

IN - Industrial Use PN - Nuclear Energy Power

MI - Mining PH - Hydroelectric Power

4. SIC Code (1) 441 (2) (3)

5. Permit# or PWS# 264 6. Telephone Number () 523-5847

7. Location of Facility: Latitude 353615 Longitude 0211630

8. Hydrologic Unit Code 11010013

9. Address P.O. BOX 512

10. City NEWPORT 11. ZIP Code 72112

**** COMPLETE 12-16 FOR PUBLIC WATER SUPPLY FACILITIES ONLY ****

12. Amount of Water Purchased From Other Public Water Suppliers:
(In Million Gallons) 0

Name(s) of Facilities

13. Amount of Water sold To Other Public Water Suppliers: 51,267.100
Name(s) of Facilities DIAZ AND JACKSONPORT WATER COMPANYS

14. Water Used For Facility Maintenance (backflushing, plant operations,
losses due to seepage and leaks) -

(In Million Gallons) 32,000,000

15. Domestic Population Served 10,000

16. Deliveries of Water to Users:

	Total Water Delivered (In Million Gallons)	Number of Connections
Domestic Households	298,000,000	2956
Commercial	16,000,000	436
Industrial	14,000,000	23
Mining		
Agriculture		
Irrigation		

DAVID SHERMAN
(Name of Plant Manager)

(Date)

067 JACKSON
(County of Diversion)

1988 NON-AGRICULTURE/NON-IRRIGATION WATER-USE REGISTRATION FORM

1. Name of Facility NEWPORT IND. PARK WATERWORKS
2. Water-user Id. # 30225
3. Use of water: (check one)

WS - Public Supply Use <u>X</u>	PF - Fossil Fuel Power <u> </u>
CO - Commercial Use <u> </u>	PG - Geothermal Power <u> </u>
IN - Industrial Use <u> </u>	PN - Nuclear Energy Power <u> </u>
MI - Mining <u> </u>	PH - Hydroelectric Power <u> </u>
4. SIC Code (1) 4441 (2) (3)
5. Permit# or PWS# 268 6. Telephone Number () 523-5847
7. Location of Facility: Latitude 353200 Longitude 0211145
8. Hydrologic Unit Code 11010013
9. Address P.O. BOX 512
10. City NEWPORT 11. ZIP Code 72112

*** COMPLETE 12-16 FOR PUBLIC WATER SUPPLY FACILITIES ONLY ***

12. Amount of Water Purchased From Other Public Water Suppliers:
(In Million Gallons) 0
Name(s) of Facilities
13. Amount of Water sold To Other Public Water Suppliers:
Name(s) of Facilities
14. Water Used For Facility Maintenance (backflushing, plant operations,
losses due to sewage and leaks) -
(In Million Gallons) 2,000 000
15. Domestic Population Served 60
16. Deliveries of Water to Users:

	Total Water Delivered (In Million Gallons)	Number of Connections
Domestic Households	<u>21,000.000</u>	<u>60</u>
Commercial	<u>1,000.000</u>	<u>8</u>
Industrial	<u>1,000.000</u>	<u>13</u>
Mining	<u> </u>	<u> </u>
Agriculture	<u> </u>	<u> </u>
Irrigation	<u> </u>	<u> </u>

DAVID A SHERMAN 067 JACKSON
 (Name of Plant Manager) (Date) (County of Diversion)

Well no 1

FILL IN A SEPARATE PAGE FOR EACH WELL OR SURFACE WATER DIVERSION POINT

17. Source of Water (Ground or Surface) GROUND

18. If Surface Water:

A. Name of Lake or Stream of Diversion

19. If Ground Water:

A. Name of Aquifer of Withdrawal ALLUVIAL

B. Depth of Well 90 ft

C. Name of Driller

20. Pump Information:

A. Capacity of Pump (Horsepower) 20

B. Type of Power (check one): Electric ☒ LPGas ☐
Diesel ☐ Other ☐

C. Type of Pump (check one): Stationary ☒ Portable ☐
Gravity ☐ Other ☐

D. Diameter of Well or Diversion Pipe: 10"

21. Location of Well or Diversion Point:

Latitude 353619 Longitude 911628

22. Hydrologic Unit Code

23. Total Water Withdrawn: (In Million Gallons)

From Ground Water (Gk)

From Surface Water (SW)

24. Amount of Water Used Monthly: (In Million Gallons):

1985	1987	1986	1987	1986	1987
JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP	OCT	NOV	DEC

These are Newport Water Plant

Well no 2

ILLINOIS A SEPARATE PAGE FOR EACH WELL OR SURFACE WATER DIVERSION POINT

17. Source of Water (Ground or Surface) ----- Ground -----

18. If Surface Water:

A. Name of Lake or Stream of Diversion -----

19. If Ground Water:

A. Name of Aquifer of Withdrawal ----- ALLUVIAL -----

B. Depth of Well ----- 90 ft -----

C. Name of Driller -----

20. Pump Information:

A. Capacity of Pump (Horsepower) ----- 40 H.P. -----

B. Type of Power (check one): Electric ☒ LPGas ☐
Diesel ☐ Other ☐

C. Type of Pump (check one): Stationary ☒ Portable ☐
Gravity ☐ Other ☐

D. Diameter of Well or Diversion Pipe: -----

21. Location of Well or Diversion Point:

Latitude ----- 33°15' ----- Longitude ----- 92°16'30" -----

22. Hydrologic Unit Code ----- 11010013 -----

23. Total Water Withdrawn: (In Million Gallons)

From Ground Water (GW) ----- 328 -----

From Surface Water (SW) -----

24. Amount of Water Used Monthly: (In Million Gallons):

1987	1988	1987	1988	1987	1988
JAN	70.00 27	FEB	52.83 24	MAR	67.47 23
APR	72.85 25	MAY	83.82 29	JUN	81.57 35
JUL	88.02 28	AUG	101.81 31	SEP	88.18 23
OCT	83.03 20	NOV	75.10 17	DEC	76.61 23

Well no 3

FILL OUT A SEPARATE PAGE FOR EACH WELL OR SURFACE WATER DIVERSION POINT

17. Source of Water (Ground or Surface) GROUND

18. If Surface Water:

A. Name of Lake or Stream of Diversion _____

19. If Ground Water:

A. Name of Aquifer of Withdrawal ALLUVIAL

B. Depth of Well _____

C. Name of Driller _____

20. Pump Information:

A. Capacity of Pump (horsepower) 30 HP

B. Type of Power (check one): Electric ☒ LPGs _____

Diesel _____ Other _____

C. Type of Pump (check one): Stationary ☒ Portable _____

Gravity _____ Other _____

D. Diameter of Well or Diversion Pipe: 10"

21. Location of Well or Diversion Point:

Latitude _____ Longitude _____

22. Hydrologic Unit Code _____

23. Total Water Withdrawn: (In Million Gallons)

From Ground Water (Gk) _____

From Surface Water (SW) _____

24. Amount of Water Used Monthly: (In Million Gallons):

1985

1987

1986

1987

1986

1987

JAN _____ FEB _____ MAR _____

APR _____ MAY _____ JUN _____

JUL _____ AUG _____ SEP _____

OCT _____ NOV _____ DEC _____

Well no 4

FILL OUT A SEPARATE PAGE FOR EACH WELL OR SURFACE WATER DIVERSION POINT

17. Source of Water (Ground or Surface) GROUND

18. If Surface Water:

A. Name of Lake or Stream of Diversion _____

19. If Ground Water:

A. Name of Aquifer of Withdrawal ALLUVIAL

B. Depth of Well 90 ft

C. Name of Driller _____

20. Pump Information:

A. Capacity of Pump (horsepower) 30 H.P.

B. Type of Power (check one): Electric ☒ LPGs _____
Diesel _____ Other _____

C. Type of Pump (check one): Stationary ☒ Portable _____
Gravity _____ Other _____

D. Diameter of well or Diversion Pipe: _____

21. Location of Well or Diversion Point:

Latitude _____ Longitude _____

22. Hydrologic Unit Code _____

23. Total Water Withdrawals: (In Million Gallons)

From Ground Water (Gk) _____

From Surface Water (SW) _____

24. Amount of Water Used Monthly: (In Million Gallons):

1985	1987	1986	1987	1986	1987
JAN _____	FEB _____	MAR _____			
APR _____	MAY _____	JUN _____			
JUL _____	AUG _____	SEP _____			
OCT _____	NOV _____	DEC _____			

Well no 5

WELL NO. 5 - SEPARATE PAGE FOR EACH WELL OR SURFACE WATER DIVERSION POINT

17. Source of Water (Ground or Surface) GROUND

18. If Surface Water:

A. Name of Lake or Stream of Diversion _____

19. If Ground Water:

A. Name of Aquifer of Withdrawal ALLUVIAL

B. Depth of Well 90 ft

C. Name of Driller _____

20. Pump Information:

A. Capacity of Pump (horsepower) 30 H.P.

B. Type of Power (check one): Electric ☒ LP Gas _____

Diesel _____ Other _____

C. Type of Pump (check one): Stationary ☒ Portable _____

Gravity _____ Other _____

D. Diameter of Well or Diversion Pipe: 12"

21. Location of Well or Diversion Point:

Latitude _____ Longitude _____

22. Hydrologic Unit Code _____

23. Total Water Withdrawn: (In Million Gallons)

From Ground Water (GW) _____

From Surface Water (SW) _____

24. Amount of Water Used Monthly: (In Million Gallons):

1985

1987

1986

1987

1986

1987

JAN _____ FEB _____ MAR _____

APR _____ MAY _____ JUN _____

JUL _____ AUG _____ SEP _____

OCT _____ NOV _____ DEC _____

1

2

Reference 18

SOIL SURVEY OF
Jackson County, Arkansas



United States Department of Agriculture
Soil Conservation Service
In cooperation with
Arkansas Agricultural Experiment Station

Issued December 1974

Contents

	Page		Page
General nature of the county	1	Descriptions of the soils—Continued	
Farming.....	1	Mountainburg series.....	2
Physiography, drainage, and water supply.....	2	Patterson series.....	2
Climate.....	3	Sequatchie series.....	3
How this survey was made	4	Sharkey series.....	3
General soil map	5	Staser series.....	3
1. Leadvale association.....	5	Use and management of the soils	3
2. Mountainburg-Enders-Linker association.....	6	Use of the soils for crops and pasture.....	3
3. Dundee-Forestdale-Amagon association.....	6	Capability grouping.....	3
4. Egam-Sharkey-Staser association.....	6	Predicted yields.....	3
5. Bosket-Dundee-Beulah association.....	7	Use of the soils for wildlife.....	3
6. Amagon-Dexter association.....	7	Use of the soils for woodland.....	3
7. Foley-Calhoun association.....	8	Production of wood crops.....	3
8. Crowley-Jackport association.....	8	Production of native forage.....	4
Descriptions of the soils	8	Use of the soils in engineering.....	4
Amagon series.....	9	Engineering soil classification systems.....	4
Beulah series.....	10	Estimated engineering properties.....	5
Bosket series.....	10	Interpretation of engineering properties.....	5
Calhoun series.....	12	Engineering test data.....	5
Crowley series.....	12	Use of the soils in town and country planning.....	5
Dexter series.....	13	Formation and classification of the soils	5
Dundee series.....	14	Factors of soil formation.....	5
Egam series.....	15	Climate.....	5
Enders series.....	16	Living organisms.....	5
Foley series.....	17	Parent material.....	5
Forestdale series.....	18	Relief.....	6
Grubbs series.....	19	Time.....	6
Hector series.....	20	Processes of soil formation.....	6
Hillemann series.....	21	Classification of soils.....	6
Jackport series.....	21	Nomenclature.....	6
Lafe series.....	22	Physical and chemical analyses.....	6
Leadvale series.....	24	Literature cited	7
Linker series.....	25	Glossary	7
McCrory series.....	27	Guide to mapping units	Following



Figure 3.—Corn on Beulah fine sandy loam, undulating.

C2—50 to 72 inches, dark-brown (7.5YR 4/2) loamy fine sand; massive; very friable; very strongly acid.

The Ap horizon is dark brown or very dark grayish brown. In some places no A3 horizon has formed. The B2t horizon is dark-brown, brown, or dark yellowish-brown sandy clay loam or loam. The C horizon is dark-brown to yellowish-brown fine sandy loam, loamy fine sand, or fine sand. The A horizon is medium acid or strongly acid, and the B and C horizons are strongly acid or very strongly acid.

Bosket soils are associated with Beulah, Dexter, Dundee, and Patterson soils. They are browner throughout than Dundee and Patterson soils. They are more clayey in the B horizon than Beulah and Patterson soils, and are more sandy in the A and B horizons than Dexter and Dundee soils.

Bosket fine sandy loam, 0 to 1 percent slopes (BoA).—This soil has the profile described as representative of the series. It is on the higher parts of natural levees near creeks and abandoned river channels. Areas are generally 10 to 100 acres in size.

Included with this soil in mapping are a few small areas of undulating soil and spots of Beulah, Dexter, and Dundee soils.

This Bosket soil is well suited to farming. It warms up early in spring and can be planted early. Under good management, clean-tilled crops that leave large amounts of residue can be grown year after year.

The main crops are cotton and soybeans. Other suitable crops are grain sorghum, winter small grain, corn, peanuts, and truck crops, such as green beans, okra, sweet corn, strawberries, potatoes, tomatoes, and melons. Suitable pasture plants are bermudagrass, bahiagrass, tall fescue, and white clover. Capability unit I-1; woodland group 2o+.

Bosket fine sandy loam, undulating (BoU).—This soil is on the tops and sides of natural levees. It is in areas of alternating long, narrow swales and low ridges that rise 2 to 5 feet above swales. Slopes are 0 to 3 percent. Areas range from 10 to 150 acres in size.

Included with this soil in mapping are a few narrow escarpments, and spots of Beulah, Dexter, Dundee, and Patterson soils.

This Bosket soil is well suited to farming, but water erosion is a moderate hazard on the steeper slopes. Soil blowing is a moderate hazard in spring if the soil is bare. This soil warms up early in spring and can be planted early. Under good management, clean-tilled crops that leave large amounts of residue can be grown year after year.

The main crops are cotton and soybeans. Other suitable crops are grain sorghum, winter small grain, corn,

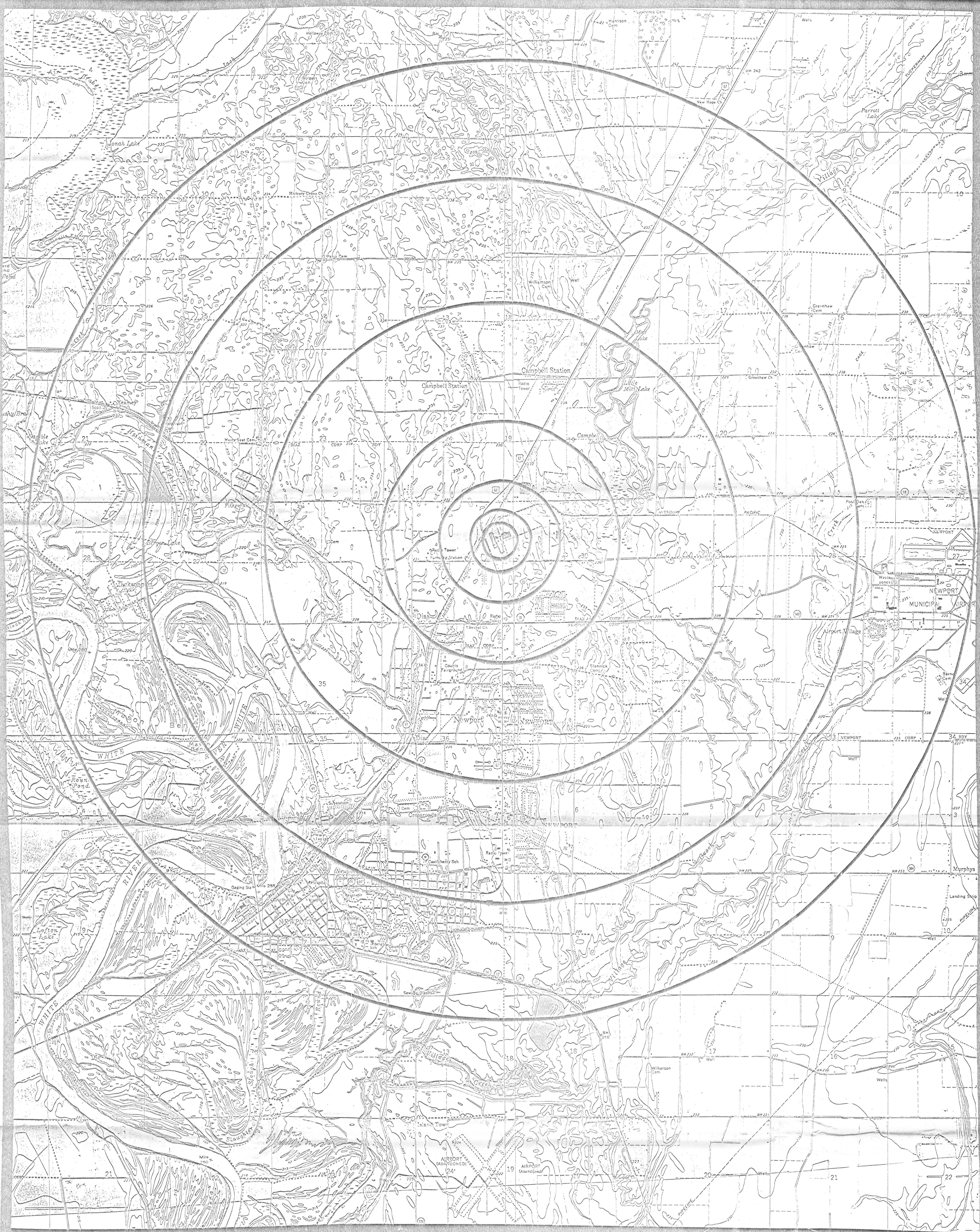
SITE LOCATION



(Joins sheet 18)

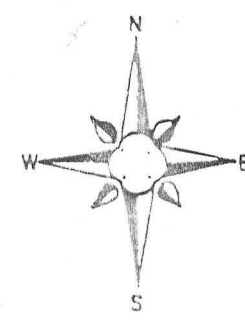
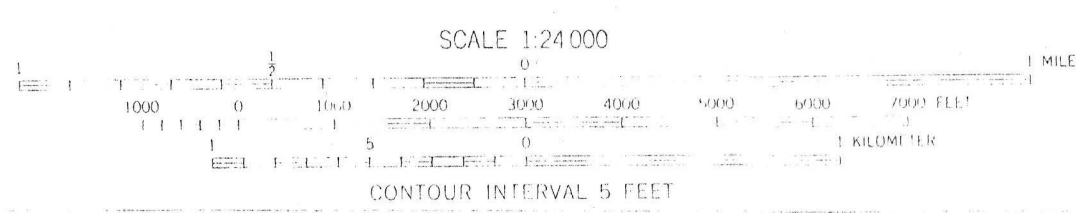
T 12 N





NORANDAL USA INC. NEWPORT PLANT
NEWPORT, AR

CERCLIS NO. ARD006351464



QUADRANGLES

JACKSONPORT, ARKANSAS
(1962)

TUCKERMAN, ARKANSAS
(1965)

NEWPORT, ARKANSAS
(1962)

AUVERGNE, ARKANSAS
(1965)



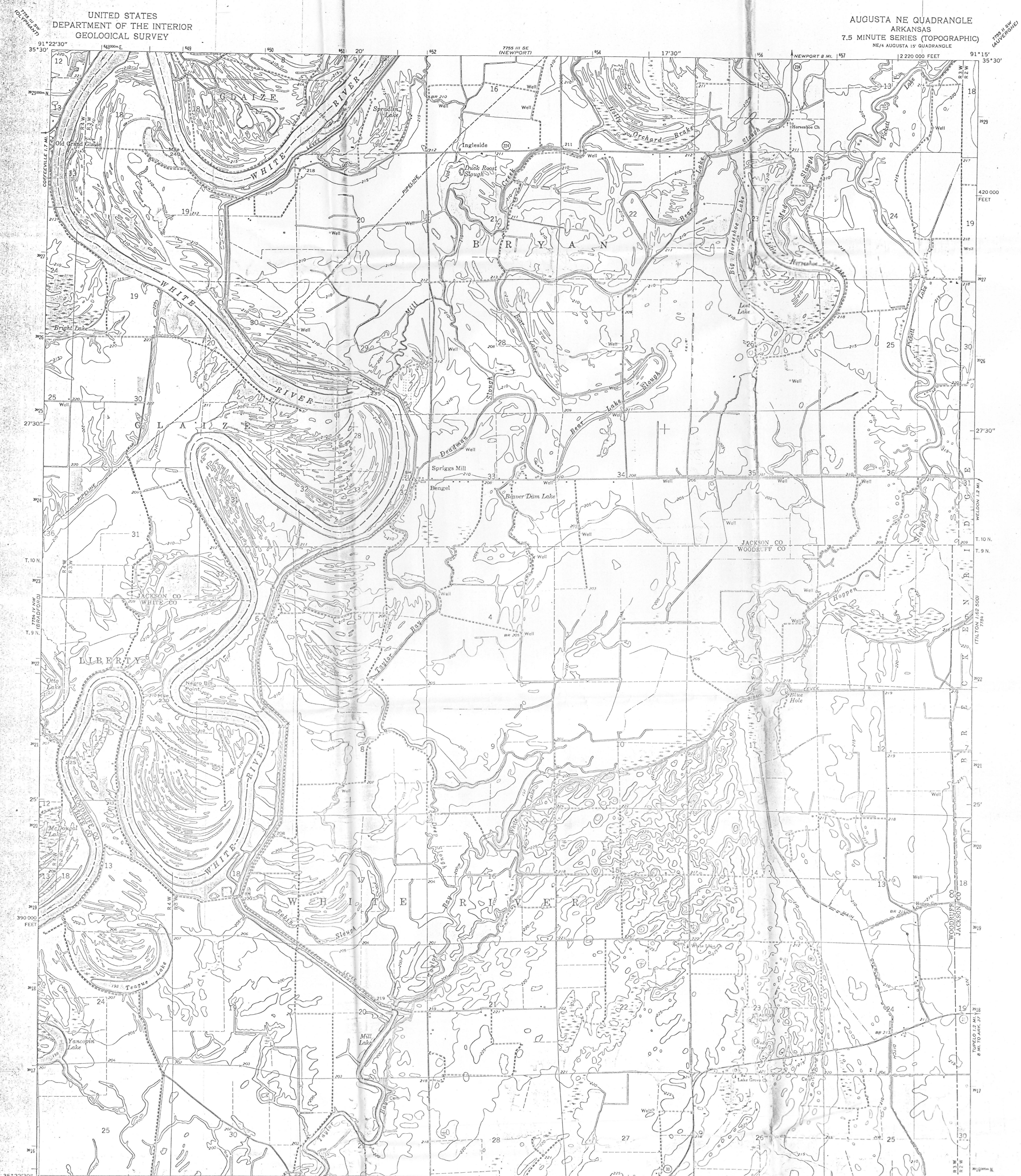
QUADRANGLE LOCATION

Reference 20

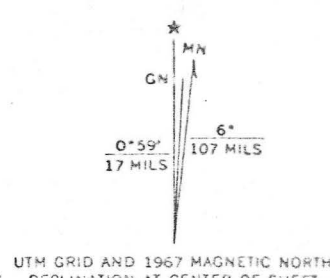
POOR QUALITY ORIGINAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

AUGUSTA NE QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NEA AUGUSTA 15' QUADRANGLE



Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
photographs taken 1966. Field checked 1967.
Polyconic projection. 1927 North American datum
10,000-foot grid based on Arkansas coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks,
zone 15, shown in blue
Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked



SCALE 1:24,000
CONTOUR INTERVAL 5 FEET
DATUM IS MEAN SEA LEVEL



ROAD CLASSIFICATION
Medium-duty ——— Light-duty ———
Unimproved dirt ———
○ State Route

AUGUSTA NE, ARK.
NEA AUGUSTA 15' QUADRANGLE
N3522.5—W9115.77.5
1967
AMS 7754 IV NE—SERIES V884

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
AND BY THE ARKANSAS GEOLOGICAL COMMISSION, LITTLE ROCK, ARKANSAS 72201
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST.

Reference 21

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: August 7, 1990

TIME: 1:45 pm

TO: Loftin Kent
Breckenridge Water Users
Association
(501)523-9045
If no answer
(501)744-3350

FROM: Trudy K. Tannen *TKT*
ICF Technology
(214)744-1641

SUBJECT:

SUMMARY OF COMMUNICATION Water Source for a Small Community on the White River

Mr. Kent has never heard of a community called Bengier or Spriggs Mill. The Breckenridge Water Association ranges from Robinson Addition in the north to Tupelo in the south. The association obtains its water from wells. No river water is used for any purpose; only well water is used for drinking.

CONCLUSIONS: The community in question is north of Tupelo so it is probably serviced by this water association.

100-100000

100-100000

Reference 22



KEY TO MAP

100 Year Flood Boundary	Zone B
100 Year Flood Boundary	Zone B
Base Flood Elevation Line With Elevation In Feet**	512
Base Flood Elevation In Feet Where Uniform Within Zone**	(EL 507)
Elevation Reference Mark	RM7X
Zone D Boundary	
Scale Mile	~1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of flooding are shown, but no flood hazard factors are determined.
A1	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A9	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood, or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

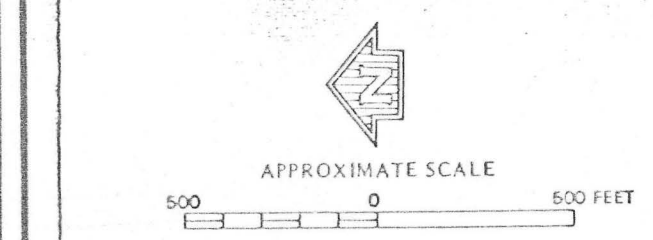
INITIAL IDENTIFICATION:
MARCH 8, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
DECEMBER 8, 1978

FLOOD INSURANCE RATE MAP EFFECTIVE:
SEPTEMBER 17, 1980

FLOOD INSURANCE RATE MAP REVISIONS:
August 1, 1983 - to add new Special Flood Hazard Areas, to change zone designations, to change base flood elevations, to change zone boundary line designations, to add streets, and to add Special Flood Hazard Areas dated August 16, 1982 from Jackson County, Arkansas.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6020.



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

CITY OF DIAZ, ARKANSAS JACKSON COUNTY

PANEL 2 OF 3
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
050100 0002 C

MAP REVISED:
AUGUST 1, 1983



Federal Emergency Management Agency

Reference 23

5 C.F.S.


STREAMS IN ARKANSAS



5 C.F.S.

STREAMS IN ARKANSAS

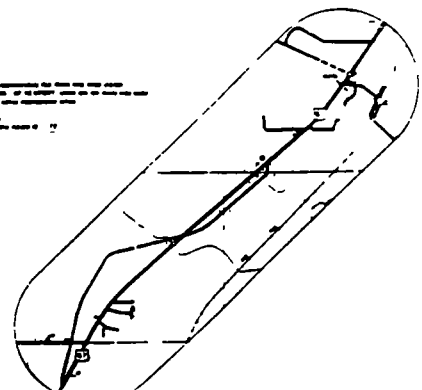
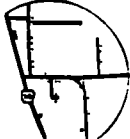
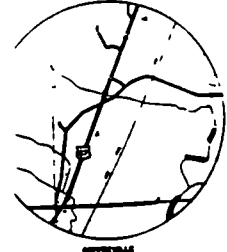
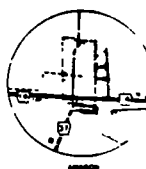
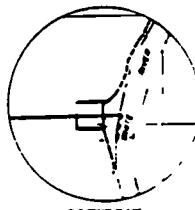
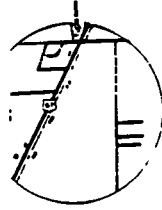
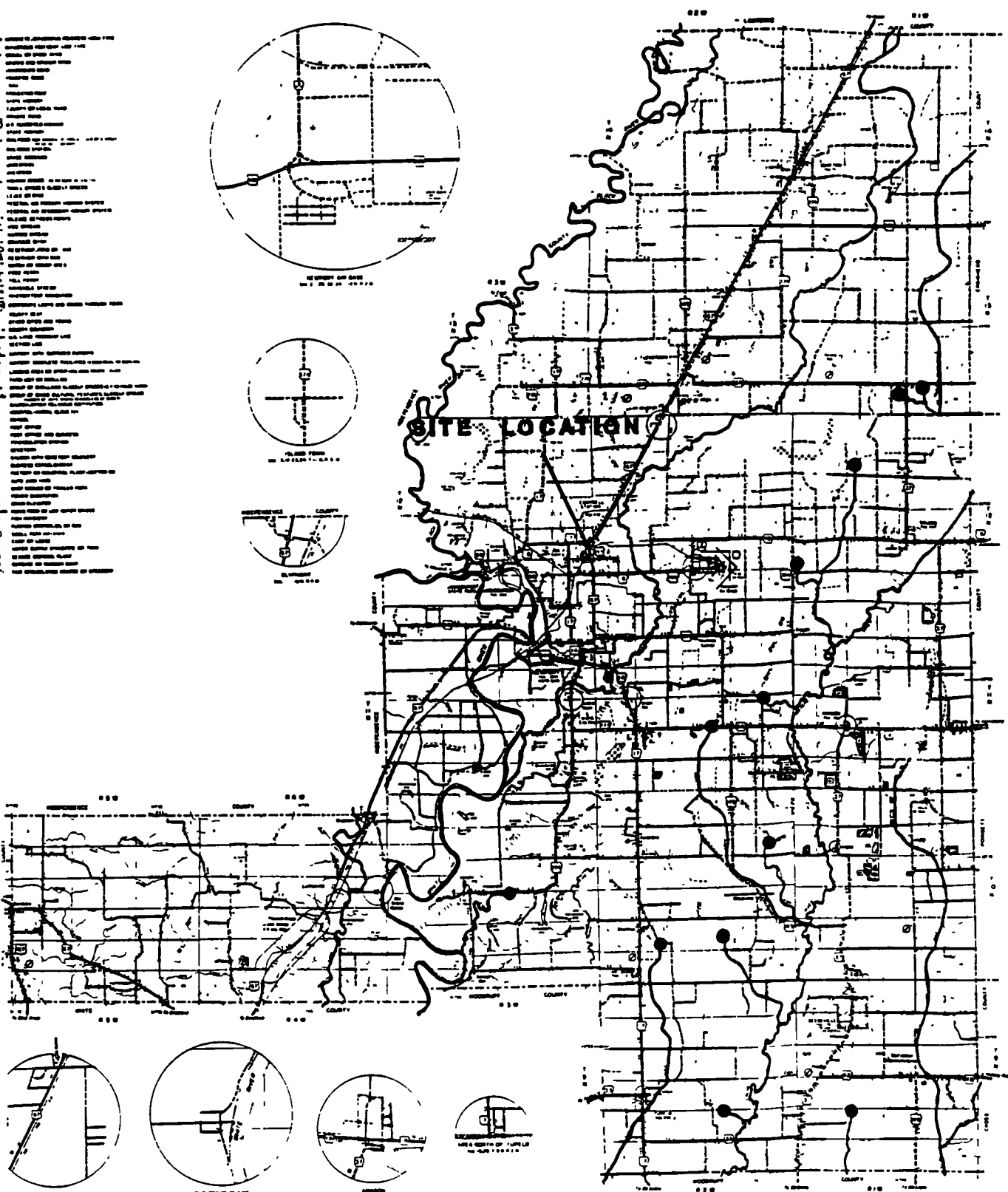
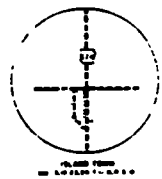
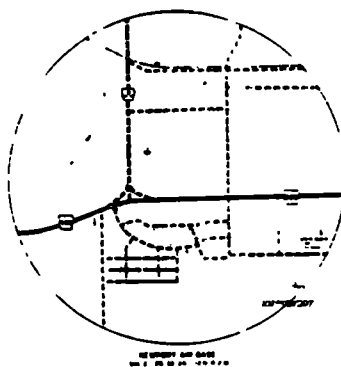
LEGEND

 WATERS OF THE UNITED STATES
HAVING AN AVERAGE ANNUAL
FLOW OF 5 CUBIC FEET PER SEC-
OND OR GREATER

 APPROXIMATE UPSTREAM LIMIT
OF 5 CUBIC FEET PER SECOND
FLOW (HEADWATERS).

Prepared by
Arkansas State Highway and Transportation Department
Environmental Division

- 1. Major Highway
- 2. Minor Highway
- 3. Road
- 4. Railroad
- 5. Waterway
- 6. Boundary
- 7. City
- 8. Town
- 9. Village
- 10. Hamlet
- 11. Unincorporated Community
- 12. Section Line
- 13. Township Line
- 14. County Line
- 15. State Line
- 16. Indian Reservation
- 17. National Forest
- 18. State Park
- 19. Wildlife Refuge
- 20. Military Reservation
- 21. Air Force Base
- 22. Naval Air Station
- 23. Naval Air Station
- 24. Naval Air Station
- 25. Naval Air Station
- 26. Naval Air Station
- 27. Naval Air Station
- 28. Naval Air Station
- 29. Naval Air Station
- 30. Naval Air Station
- 31. Naval Air Station
- 32. Naval Air Station
- 33. Naval Air Station
- 34. Naval Air Station
- 35. Naval Air Station
- 36. Naval Air Station
- 37. Naval Air Station
- 38. Naval Air Station
- 39. Naval Air Station
- 40. Naval Air Station
- 41. Naval Air Station
- 42. Naval Air Station
- 43. Naval Air Station
- 44. Naval Air Station
- 45. Naval Air Station
- 46. Naval Air Station
- 47. Naval Air Station
- 48. Naval Air Station
- 49. Naval Air Station
- 50. Naval Air Station



DISTRICT 5

GENERAL HIGHWAY MAP
JACKSON COUNTY
ARKANSAS

ARIZONA STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
DIVISION OF PLANNING AND RESEARCH
A SUBDIVISION OF THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Scale: 1 inch = 10 miles
1976

Legend:
Major Highway
Minor Highway
Road
Railroad
Waterway
Boundary
City
Town
Village
Hamlet
Unincorporated Community
Section Line
Township Line
County Line
State Line
Indian Reservation
National Forest
State Park
Wildlife Refuge
Military Reservation
Air Force Base
Naval Air Station



Reference 24

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: July 26, 1990

TIME: 1:00 pm

TO: Elton Porter
USGS Water Resources
Division
Little Rock, AR
(501)378-6391

FROM: Trudy K. Tannen
ICF Technology
(214)744-1641

SUBJECT: Depth of White River near Newport

SUMMARY OF COMMUNICATION

Current gauging station is approximately 18 miles down the river from Newport. The elevation of the channel bottom is 185 mean sea level (MSL) and the gauge elevation is 194 MSL. The current reading is 11.98 feet above gauge. The maximum depth of the river is 27.8 feet.

10/10/2017

10/10/2017

Reference 25



Water Resources Data Arkansas Water Year 1989



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT AR-89-1
Prepared in cooperation with the Arkansas Department of
Pollution Control and Ecology; Arkansas Game and Fish
Commission; Arkansas Geological Commission; Arkansas Soil
and Water Conservation Commission; Arkansas State Highway
and Transportation Department; Independence County;
Little Rock Municipal Water Works; and with other
State and Federal agencies

CONTENTS

	Page
Preface.....	III
List of gaging stations, in downstream order, for which records are published.....	VI
Introduction.....	1
Cooperation.....	1
Hydrologic Conditions.....	1
Surface water.....	1
Surface-water quality.....	3
Ground water.....	4
Definition of terms.....	4
Downstream order and station number.....	9
Numbering system for wells and miscellaneous sites.....	9
Special networks and programs.....	10
Explanation of stage and water-discharge records.....	10
Collection and computation of data.....	10
Accuracy of field data and computed results.....	11
Other data available.....	11
Explanation of water-quality records.....	12
Collection and examination of data.....	12
Water analysis.....	13
Water temperature.....	13
Sediment.....	13
Explanation of ground-water level records.....	14
Collection of the data.....	14
Explanation of ground-water quality records.....	15
Collection of the data.....	15
Explanation of precipitation-quality records.....	15
Collection of the data.....	15
Access to WATSTORE.....	15
Publications on techniques of water-resources investigations.....	16
Discontinued gaging stations.....	18
Discontinued water-quality stations.....	20
Hydrologic-data station records.....	30
Discharge at partial-record stations and miscellaneous sites.....	453
Crest-stage partial-record stations.....	453
Low-flow partial-record stations.....	459
Measurements at miscellaneous sites.....	471
Analyses of samples collected at low-flow partial-record stations.....	473
Analyses of samples collected at water-quality partial-record stations.....	480
Ground-water levels.....	550
Quality of ground water.....	570
Chemical-quality of precipitation.....	573
Index.....	579

ILLUSTRATIONS

Figure 1. Graph showing comparison of discharge at two representative long-term gaging stations.....	2
2. Map showing locations of continuous-gaging stations in western Arkansas.....	26
3. Map showing locations of continuous-gaging stations in eastern Arkansas.....	27
4. Map showing locations of water-quality stations in western Arkansas.....	28
5. Map showing locations of water-quality stations in eastern Arkansas.....	29
6. Map showing locations of observation wells in Arkansas.....	549

TABLES

TABLE 1. Factors for conversion of chemical constituents in milligrams or micrograms per liter.....	6
2. Degrees Celsius (°C) to degrees Fahrenheit (°F).....	13
3. Factors for conversion of sediment concentration in milligrams per liter to parts per million.....	14

HYDROLOGIC-DATA STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Note.--Data for partial-record stations and miscellaneous sites for both surface-water quantity and quality are published in separate sections of the data report. See references at the end of this list for page numbers for these sections.

[Letters after station name designate type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) evaluation, gage heights, or contents.]

	Page
MISSISSIPPI RIVER BASIN	
Mississippi River at Memphis, TN (d,c,m,e).....	30
ST. FRANCIS RIVER BASIN	
St. Francis River at Fisk, MO (c,s).....	34
St. Francis River near Glennonville, MO (s).....	36
Wilhelmina Cutoff near Campbell, MO (s).....	37
St. Francis River at St. Francis (c,s).....	38
St. Francis River near Piggott (s).....	43
St. Francis River at Holly Island (s).....	44
St. Francis River at Lake City (c,s).....	46
Cockle Burr Slough Ditch near Monette (c,s).....	48
Right Hand Chute of Little River at Rivervale (c,s).....	49
St. Francis River at Parkin (d,c,m).....	51
St. Francis River Floodway near Marked Tree (c,s).....	54
Cross County Ditch near Birdseye (s).....	56
St. Francis Bay at Riverfront, Ark (d,c,m,s).....	58
Clark Corner Cutoff near Colt, Ark (s).....	62
St. Francis River at Madison (c,s).....	63
L'anguille River near Colt (d,c,m,s).....	66
Second Creek near Palestine (c,m).....	70
L'anguille River at Marianna (c,m).....	72
WHITE RIVER BASIN	
West Fork White River East of Fayetteville (c,m).....	74
White River near Fayetteville, Ark (d).....	76
White River near Goshen (c,m).....	77
Holman Creek near Huntville (c,m).....	80
Beaver Lake near Eureka Springs (c,m).....	82
White River at Beaver Dam, near Eureka Springs (c,m).....	90
Ozage Creek Southwest of Berryville (c,m).....	91
Ozage Creek West of Berryville (c,m).....	93
Kings River near Berryville (c,m).....	95
Long Creek near Denver (c,m).....	97
Table Rock Lake near Branson, MO (c,m).....	99
White River below Table Rock Dam, near Branson, MO (c,m).....	109
Bull Shoals Lake near Flippin (c,m).....	110
White River at Bull Shoals Dam, near Flippin (c,m).....	117
Crooked Creek at Harrison (c,m).....	118
Crooked Creek near Harrison (c,m).....	120
Crooked Creek at Yellville (d,c,m).....	122
Buffalo River near St. Joe (d,c,m).....	125
Hicks Creek near Mountain Home (c,m).....	128
White River near Norfolk (c,m).....	130
Norfolk Lake near Norfolk (c,m).....	132
North Fork River at Norfolk Dam, near Norfolk (c,m).....	139
White River at Calico Rock, Ar (d,c,m).....	140
Mill Creek near Melbourne (c,m).....	143
North Sylamore Creek near Fifty Six, Ar (d,c,m).....	145
White River at Batesville, Ark (d).....	148
White River at Oil Trough (c,m).....	149
Clearwater Lake at Clearwater Dam, MO (c,m).....	151
Black River at Clearwater Dam, MO (c,m).....	155
Black River near Corning, Ar (d).....	156
Current River near Pocahontas (c,m).....	157
Black River at Pocahontas (c,m).....	159
Mammoth Spring at Mammoth Spring, Ar (d).....	161
South Fork Spring River at Saddle (c,m).....	162
Spring River at Ravenden (c,m).....	164
Spring River at Imboden, Ar (d).....	166
Eleven Point River near Ravenden Springs (d).....	167
Eleven Point River near Pocahontas (c,m).....	168
Black River at Black Rock (d,c,m).....	170
Strawberry River near Poughkeepsie (d).....	173
Strawberry River near Smithville (c,m).....	174
White River at Newport (d,c,m).....	176
Middle Fork Little Red River near Shirley (c,m).....	179

MISSISSIPPI RIVER BASIN--Continued

WHITE RIVER BASIN--Continued

South Fork Little Red River at Clinton, Ar (d).....	181
Greers Ferry Lake near Heber Springs (c,m).....	182
Little Red River near Heber Springs (c,m).....	189
Little Red River near Searcy, Ark (d).....	190
Little Red River Above Searcy (c,m).....	191
Little Red River below Searcy (c,m).....	193
Wattensaw Bayou near Hazen (c,m).....	195
White River at Devalls Bluff (d,c,m).....	197
Cache River at Egypt (d).....	200
Cache River at Patterson (c,m).....	201
Cache River near Cotton Plant (d).....	208
Bayou Devieu near Gibson (c,m).....	212
Bayou Devieu at Morton (c,m).....	214
White River at St. Charles (c,m).....	216
Boat Gunwale Slash near Holly Grove (c,m).....	218
Big Creek at Poplar Grove (d).....	220
Prairie Cypress Creek near Cross Roads (c,m).....	221
ARKANSAS RIVER BASIN	
Arkansas River:	
Neosho River:	
Elk River:	
Little Sugar:	
Mckisic Creek tributary near Bentonville (c,m).....	223
Butler Creek near Sulphur Springs (c,m).....	225
Spavinaw Creek near Cherokee City (c,m).....	227
Illinois River at Savoy (c,m).....	229
Clear Creek at Johnson (c,m).....	231
Osage Creek near Elm Springs (c,m).....	233
Illinois River near Siloam Springs (c,m).....	235
Flint Creek at Springtown (d).....	237
Flint Creek near West Siloam Springs, Okla. (d).....	238
Baron Fork at Dutch Mills (d,c,m).....	239
Poteau River at Waldron (c,m).....	242
Poteau River Northwest of Waldron (c,m).....	244
Poteau River at Cauthron (d).....	246
James Fork near Hackett (d,c,m).....	247
Lee Creek near Van Buren (d).....	250
Arkansas River at Van Buren (c,m).....	251
Arkansas River at James W. Trimble Lock and Dam, near Van Buren (d,c,m).....	254
Mulberry River near Mulberry (d).....	257
Mulberry River at I-40 near Mulberry (c,m).....	258
Arkansas River at Ozark Dam at Ozark (c,m).....	260
Short Mountain Creek West of Paris (c,m).....	262
Short Mountain Creek north of Paris (c,m).....	264
Big Piney Creek near Dover (d).....	266
Big Piney Creek at Highway 164 near Dover (c,m).....	267
Illinois Bayou near Dover (c,m).....	269
Arkansas River at Dardanelle (d,c,m).....	271
Whig Creek near Dardanelle (c,m).....	278
Petit Jean River near Booneville (c,m).....	280
Blue Mountain Lake near Waveland (c,m).....	282
Petit Jean River near Waveland (c,m).....	286
Dutch Creek at Shark (c,m).....	287
Petit Jean River at Danville (d).....	289
Chickalah Creek at Chickalah (c,m).....	290
Arkansas River at Dam No. 9, near Oppelo (c,m).....	292
White Oak Creek near atkins (c,m).....	294
Cadron Creek near Guy (d).....	296
Arkansas River at Toad Suck Ferry Dam, near Conway (c,m).....	297
Fourche Lafave River near Gravelly (d,c,m).....	299
Nimrod Lake near Nimrod (c,m).....	302
Fourche Lafave River near Nimrod (c,m).....	306
South Fourche Lafave River at Hollis (c,m).....	307
South Fourche Lafave River near Hollis (c,m).....	309
Stone Dam Creek near Conway (c,m).....	310
Arkansas River at Murray Dam, at Little Rock (d,c,m).....	312
Arkansas River at David D. Terry Lock and Dam, below Little Rock (c,m).....	315
Arkansas River at Lock and Dam 5 near Wright (c,m).....	317
Arkansas River at Lock and Dam 4 near Pine Bluff (c,m).....	319
Bayou Meto near North Little Rock (c,m).....	321
Bayou Meto near Jacksonville (c,m).....	323
Bayou Meto near Lonoke (d).....	325

	Page
MISSISSIPPI RIVER BASIN--Continued	
ARKANSAS RIVER BASIN--Continued	
Bayou Meto near Bayou Meto (c,m).....	326
Arkansas River at Dam No. 2, near Gillett (c,m).....	328
Mississippi River near Arkansas City (c,m).....	330
RED RIVER BASIN	
Red River near Foreman (c,m).....	332
Red River at Index (d,c,m).....	334
Mountain Fork near Matfield (c,m).....	337
Dequeen Lake near Dequeen (c,m).....	339
Rolling Fork below Dequeen Lake near Dequeen (c,m).....	345
Bear Creek near Moratio (c,m).....	346
Little River near Moratio (d,c,m).....	348
Cossatot River near Vandervoort (d,c,m).....	351
Cossatot River near Umpire (c,m).....	354
Gilliam Lake near Gilliam (c,m).....	356
Cossatot River below Gilliam Dam near Gilliam (c,m).....	362
Saline River near Burg (c,m).....	363
Dierks Lake near Dierks (c,m).....	365
Saline River below Dierks Dam, near Dierks (c,m).....	371
Holly Creek East of Dierks (c,m).....	372
Holly Creek at Dierks (c,m).....	374
Saline River near Lockesburg (d).....	376
Millwood Lake near Ashdown (c,m).....	377
Little River at Millwood Dam, near Ashdown (c,m).....	382
Sulphur River south of Texarkana (c,m).....	383
Days Creek Southeast of Texarkana (c,m).....	385
Red River near Spring Bank (c,m).....	387
Bayou Dorcheat near Taylor (c,m).....	389
Bodcaw Creek near Lewisville (c,m).....	391
Prairie Creek near Mena (c,m).....	393
Ouachita River near Mount Ida (d,c,m).....	395
Ouachita River near Malvern (d).....	398
Ouachita River near Donaldson (c,m).....	400
Caddo River near Caddo Gap (d).....	402
South Fork Caddo River at Fancy Hill (c,m).....	403
Caddo River near Amity (c,m).....	405
Little Missouri River near Langley (c,m).....	407
Prairie Creek at Murfreesboro (c,m).....	409
Prairie Creek near Murfreesboro (c,m).....	411
Antoine River at Antoine (d).....	413
Little Missouri River near Boughton (c,m).....	414
Ouachita River at Camden (d,c,m).....	416
Ouachita River below Camden (c,m).....	419
Smackover Creek near Smackover (d).....	420
Smackover Creek north of Smackover (c,m).....	421
Jug Creek near Fordyce (c,m).....	423
Moro Creek near Banks (c,m).....	425
Saline River West of Benton (c,m).....	427
Saline River near Shaw (c,m).....	429
Saline River near Sheridan (c,m).....	431
Hurricane Creek near Sardis (c,m).....	433
Hurricane Creek near Sheridan (d).....	435
Big Creek near Sheridan (c,m).....	436
Big Creek near Pansy (c,m).....	438
Saline River near Rye (d).....	440
Saline River near Fountain Hill (c,m).....	441
Bayou Bartholomew near Ladd (c,m).....	443
Bayou Bartholomew at Garrett Bridge (D).....	445
Bayou Bartholomew near McGehee (d).....	446
Bayou De Loutre near El Dorado (c,m).....	447
Cornie Bayou near Three Creeks (d,c,m).....	449
Black River:	
Bayou Macon at Eudora (d).....	452
Discharge at partial-record stations and miscellaneous sites.....	453
Crest-stage partial-record stations.....	453
Low-flow partial-record stations.....	459
Miscellaneous sites.....	471
Analyses of samples collected at low-flow partial-record stations.....	473
Analyses of samples collected at water-quality partial-record stations.....	480

WHITE RIVER BASIN

07074500 WHITE RIVER AT NEWPORT, ARK
(National stream-quality accounting network station)

LOCATION --Lat 35°36'18", long 91°17'19", in NE¼ sec. 10, T 11 N., R 3 W., Jackson County, Hydrologic Unit 11010013, on left bank 100 ft downstream from bridge on U.S. Highway 67 at Newport, 7.2 mi downstream from Black River, and at mile 257.6.

DRAINAGE AREA --19,860 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD --September 1927 to September 1931 (published as "near Newport"), October 1937 to current year.
Gage-height records collected at present site since 1885 are contained in reports of National Weather Service.

REVISED RECORDS.--WRD Ark, 1973. Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 194.09 ft above National Geodetic Vertical Datum of 1929. September 1927 to September 1931, nonrecording gage at site 2.8 mi downstream at datum 2.30 ft lower. Oct 1, 1937, to Aug. 14, 1953, nonrecording gage at present site and datum.

REMARKS --Water-discharge records good. Some regulation since 1943 by Norfolk Lake, capacity, 1,983,000 acre-ft since 1948 by Clearwater Lake (Missouri), capacity, 413,700 acre-ft, since July 24, 1951, by Bull Shoals Lake, 149 mi upstream, capacity, 5,408,000 acre-ft, since Sept. 9, 1956, by Table Rock Lake (Missouri), capacity, 3,567,500 acre-ft, and since Dec. 26, 1963, by Beaver Lake, capacity, 1,951,500 acre-ft. Satellite telemeter at station.

AVERAGE DISCHARGE.--56 years, 22,700 ft³/s, 16,450,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 343,000 ft³/s Apr. 17, 1945; maximum gage height observed, 35.9 ft Apr. 18, 1945; minimum discharge, 2,870 ft³/s Sept. 27-30, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1927, that of Apr. 18, 1945. Flood of Apr. 16, 1927, reached a stage of 35.6 ft, from records of National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137,000 ft³/s Feb. 17, gage height, 30.31 ft; minimum daily, 5,770 ft³/s Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10600	11100	37200	23400	29400	57400	53700	27000	23300	22600	12700	8220
2	11200	12000	36700	21200	27100	54100	52300	22100	21500	22200	11300	12500
3	11000	10600	35000	19400	28000	51700	51200	24200	18800	18000	10600	12300
4	10100	9800	33400	18200	28000	52500	54600	26400	16900	14700	11600	9050
5	9190	6990	32000	19700	24700	57600	56500	27000	16800	14000	15200	8500
6	8610	5880	29400	22700	24500	59700	52900	25300	16000	14000	15100	8850
7	8130	6540	26800	26100	42200	55700	51100	21600	17400	15400	12000	7710
8	7830	6810	25200	26400	43200	54000	49500	17100	18400	18100	9570	7820
9	8100	6690	23800	22600	24400	53300	48500	20800	17700	18600	8870	11600
10	7930	7470	23400	23800	24500	54000	48500	35600	15700	17400	7280	13500
11	7480	6650	22200	29000	45900	53900	49200	29600	15200	16300	6620	10400
12	8500	7000	19000	25400	24100	53700	50500	22900	14900	17300	7300	7900
13	8550	12300	15800	22100	23900	53500	51900	20400	18500	18100	8980	7510
14	7460	10400	13300	20400	24200	53000	51700	17100	22200	18300	8030	7800
15	8370	7830	12800	19600	65700	51800	52600	14400	23900	19700	7170	7890
16	8070	6860	13300	19900	98900	50800	52900	12400	24200	16200	8090	8760
17	7800	10300	15900	19700	130000	50000	53400	14100	23800	12600	9530	8130
18	6140	12200	19000	19300	126000	50200	53400	13400	23400	9780	8330	7790
19	7650	17500	15400	17800	109000	50100	52100	12700	24700	10300	6390	7780
20	10100	31900	12500	16800	98100	50000	51600	11700	25500	10600	6940	8850
21	11700	37600	10900	16500	94500	50000	51400	12200	28400	9990	7700	9060
22	12200	37300	10100	16800	92500	50700	51000	13100	27200	9630	6820	7080
23	12200	36000	9810	16500	89300	51700	49300	18400	24400	9500	9160	6260
24	10000	34500	8940	14300	84600	51200	46100	24200	21000	8920	13400	5980
25	7440	32700	8640	14100	77800	51900	42200	29400	18200	8480	11700	6010
26	7940	31700	8250	15800	71600	51800	38900	34000	18700	10900	9570	5770
27	9140	37400	8490	20500	65600	51500	36800	32400	19300	13300	7490	5980
28	10600	40500	11000	24600	61200	50900	34500	30500	20300	13100	10800	6290
29	13700	39800	15800	27500	---	53100	34900	30300	18400	15100	13700	7260
30	13500	38800	19500	28800	---	56000	33500	28500	20900	15000	12000	6990
31	11200	---	21600	29600	---	55500	---	25200	---	14600	10500	---
TOTAL	292410	572920	594830	658500	1821600	1641300	1456800	694100	615600	452700	304440	249540
MEAN	9433	19100	19190	21240	65060	52950	48560	22390	20520	14600	9821	8318
MAX	13700	40500	37200	29600	130000	59700	56500	35600	28400	22600	15200	13500
MIN	6140	5880	8250	14100	27100	50000	33500	11700	14900	8480	6390	5770
AC-FT	580000	1136000	1180000	1306000	3613000	3256000	2890000	1377000	1221000	897900	603900	495000

CAL YR 1988 TOTAL 8453420 MEAN 23100 MAX 65400 MIN 5580 AC-FT 16770000
WTR YR 1989 TOTAL 9354840 MEAN 25630 MAX 130000 MIN 5770 AC-FT 18560000

e Estimated

2020-08-20

1000

Reference 26

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and
Return Periods from 1 to 100 Years

Prepared by
DAVID M. HENSHFIELD

Cooperative Studies Section, Hydrologic Services Division

for

Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

THIS ATLAS IS OBSOLETE FOR THE FOLLOWING 11 WESTERN STATES: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOAA ATLAS 2: PRECIPITATION-FREQUENCY ATLAS OF THE WESTERN UNITED STATES (GPO: 11 Vols., 1973) supersedes the Technical Paper 40 data for these states.

All but 3 of the 11 state volumes are out of print, and no reprint is presently planned.

Institutions in the eleven western states likely to have copies of these volumes for their state for public inspection are:

US Department of Agriculture Soil Conservation Service Offices
US Army Corps of Engineers Offices
Selected University Libraries
National Weather Service Offices (may also have volumes for adjacent states).
National Weather Service Forecast Offices (may have all eleven volumes)

Elsewhere, libraries of universities where hydrology and meteorology degree programs are offered may shelve some of the eleven volumes.

The three volumes in print as of 1 Jan 1983 at the GPO are:

Vol	State	GPO Stock Number	Price
IV	New Mexico	003-017-00158-0	\$10.00
VI	Utah	003-017-00160-1	12.00
VII	Nevada	003-017-00161-0	9.50

The GPO order number is 202-782 3238 for VISA and MASTERCARD orders which

NOTICE

Rainfall-frequency information for durations of 1 hour and less for the Central and Eastern States has been superseded by NOAA Technical Memorandum NWS HYDRO-35 Five to Sixty-Minute Precipitation Frequency for the Eastern and Central United States. This publication (Accession No. PB 272-112/AS) is obtainable from:

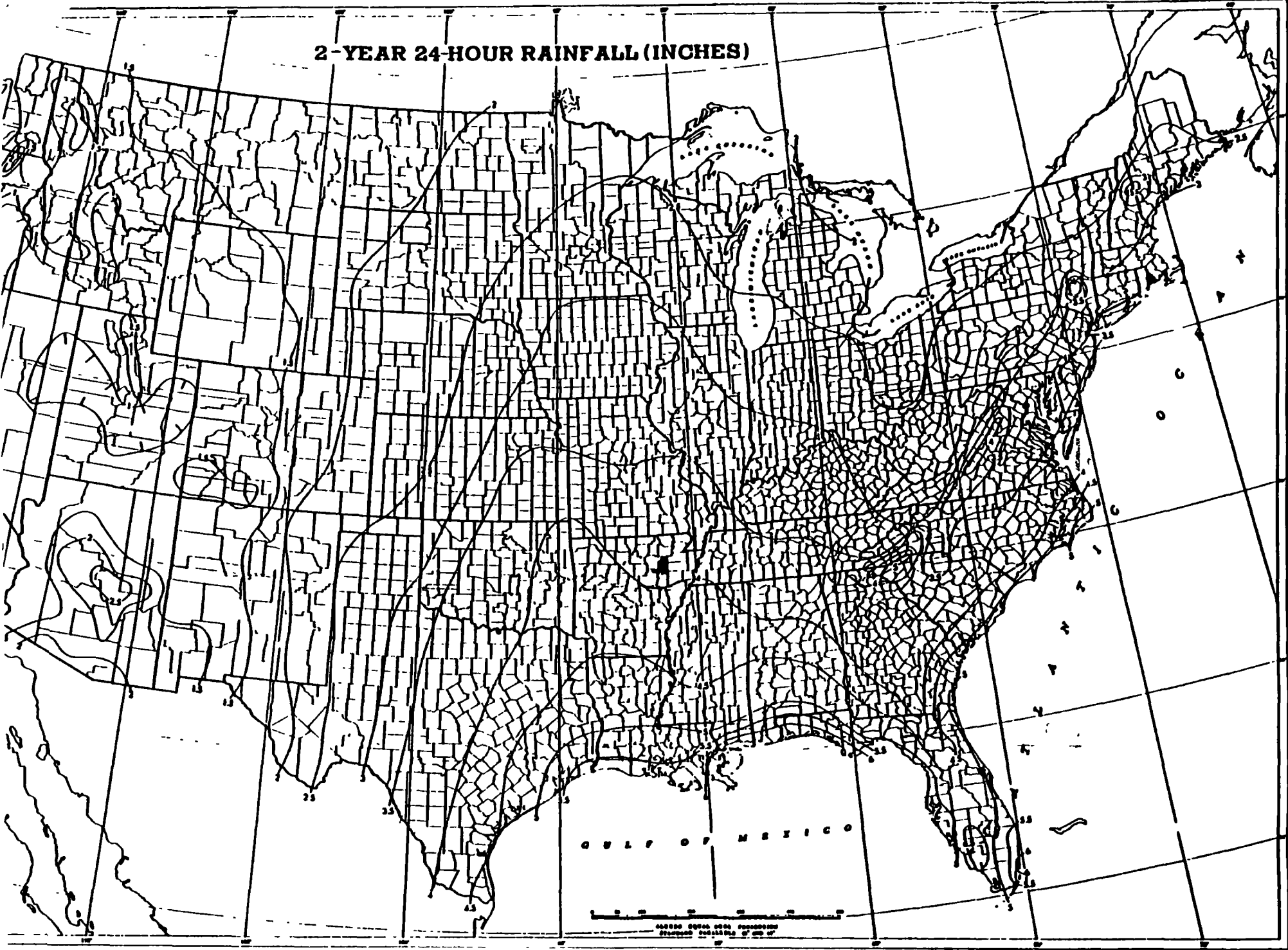
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161



WASHINGTON, D.C.

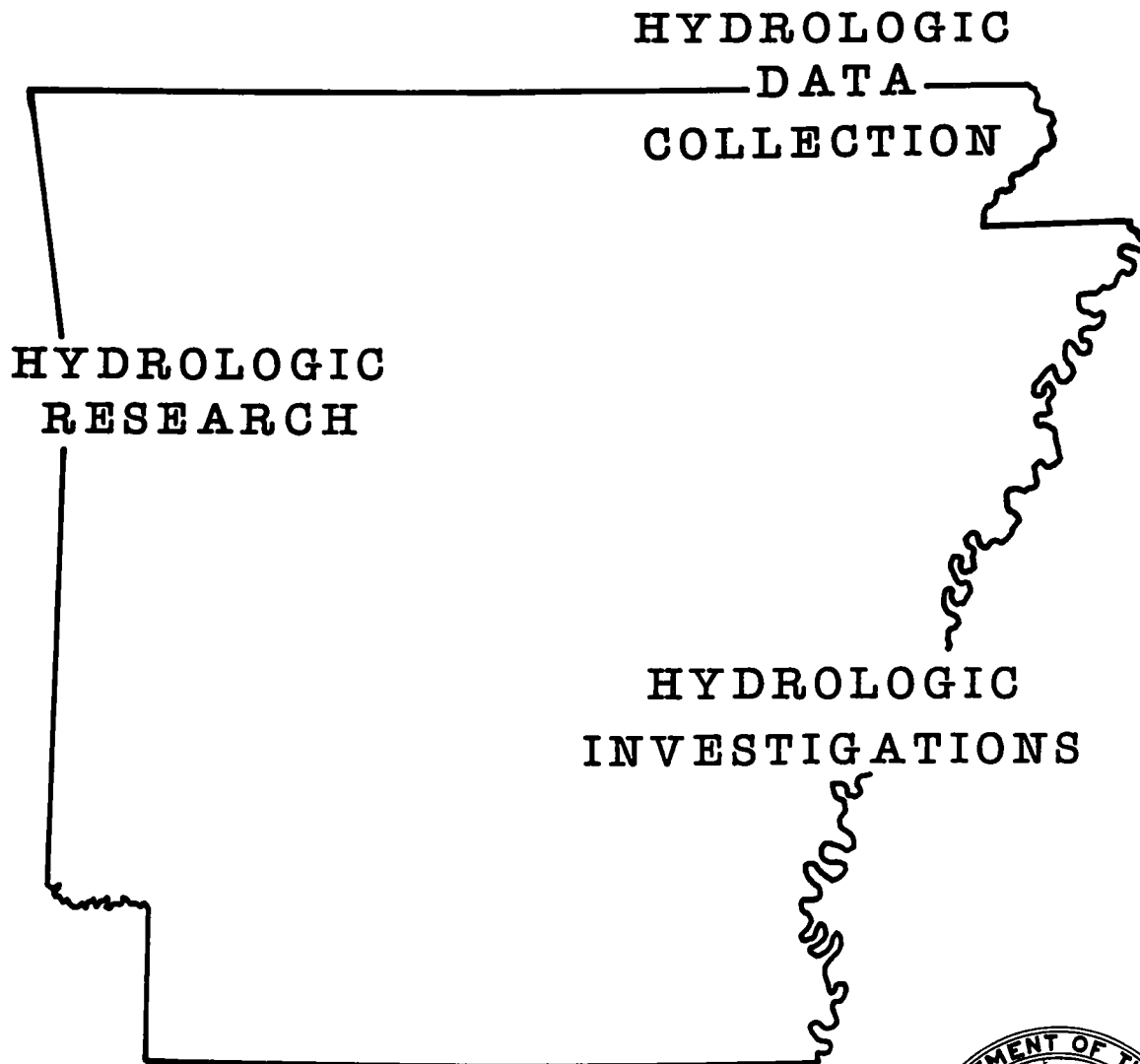
May 1961

2-YEAR 24-HOUR RAINFALL (INCHES)



Reference 27

CURRENT WATER RESOURCES ACTIVITIES IN ARKANSAS, 1986-87



Open-File Report 88-338



ECOLOGY AND ENVIRONMENT, INC.

LIBRARY

DO NOT REMOVE

AR

CONTENTS

	Page
Message from Arkansas District Chief.....	1
U.S. Geological Survey origin.....	2
Water Resources Division basic mission and program.....	3
Organization of the Arkansas District.....	5
Types of funding.....	8
Water conditions in Arkansas.....	10
Ground water.....	10
Surface water.....	13
Current project descriptions.....	15
Collection of surface-water data.....	15
Collection of ground-water data.....	17
Collection of water-quality data.....	19
Sediment stations.....	20
Arkansas River basin annual flows for Arkansas-Oklahoma compact...	21
National trends network acid precipitation site.....	22
Water-use data for Arkansas.....	23
West Gulf Coast Regional Aquifer System Analysis in Arkansas.....	24
Statistical summaries of surface-water quality data for Arkansas.....	26
Flood frequency and hydraulics.....	27
Estimating scour at bridge piers on streams in Arkansas.....	28
Sparta model.....	30
An updated water plan for Arkansas.....	31
An investigation of possible ground-water contamination in a karst environment in Arkansas.....	33
Eastern Arkansas water conservation project.....	34
Determining flood hydrographs for Arkansas streams.....	36
Installation restoration program - phase II, stage 1 confirmation/ quantification, Little Rock Air Force Base, Little Rock, Arkansas.....	38
Wetland research project, Black Swamp, Cache River, Woodruff County, Arkansas.....	40
Low-flow characteristics of Arkansas streams.....	42
Sources of WRD publications and information.....	43
Publications of the U.S. Geological Survey.....	43
Water-data program.....	43
NAWDEX.....	44
WATSTORE.....	44
Public Inquiries Offices.....	45
List of reports approved for publication or released since 1985 in the Arkansas District.....	46

CONTENTS (continued)

	Page
Selected bibliography of Arkansas District reports.....	49
Professional Papers.....	49
Water-Supply Papers.....	50
Open-File and Water-Resources Investigations Reports.....	52
Unnumbered Open-File Reports.....	52
Numbered Open-File Reports.....	54
Water-Resources Investigations Reports.....	56
Publications of the Arkansas Geological Commission prepared by or in cooperation with the U.S. Geological Survey.....	57
Water Resources Circulars.....	57
Water Resources Summaries.....	58
U.S. Geological Survey Hydrologic Investigations Atlases.....	59
U.S. Geological Survey Hydrologic Unit Maps.....	59

ILLUSTRATIONS

Figures 1. Map showing U.S. Geological Survey, Water Resources Division offices in Arkansas.....	4
2. Chart showing Arkansas District organization.....	7
3. Graph showing Arkansas District Program source of funds....	8
4-7. Maps showing:	
4. Physiographic areas and principal aquifers in Arkansas.....	11
5. Total water use in Arkansas counties from ground- and surface-water sources.....	12
6. Locations of flood-prone area maps for Arkansas.....	13
7. Location of wells with continuous water-level recorders and number of observation wells measured annually....	18

TABLES

Table 1. Agencies supporting water-resources investigations during 1986 through 1987 in the Arkansas District.....	9
2. Flood-prone area maps for Arkansas.....	14

Reference 28

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: August 7, 1990

TIME: 1:00 pm

TO: Jack Johnson
Corps. of Engineers
(501)378-5551

FROM: Trudy K. Tannen
ICF Technology
(214)744-1641

SUBJECT: Uses of the White River

SUMMARY OF COMMUNICATION

The White River is "perceived as being clean" by the residents along it. People do fish in the river. The river is also used for boating. Downstream where the land is flat along the river, river water may be used for irrigation. No known areas use the river for drinking water.

2017

2017

Reference 29



Harold K. Grimmer
Director

ARKANSAS NATURAL HERITAGE COMMISSION

THE HERITAGE CENTER, SUITE 200
225 EAST MARKHAM
LITTLE ROCK, ARKANSAS 72201
Phone: (501) 371-1706



Bill Clinton
Governor

Date: July 16, 1990
Subject: EPA Assessment
Vic. Newport, Arkansas
ANHC Job # CF..-161
Received: June 25, 1990

Trudy K. Tannen
Analyst
ICF Technology Incorporated
1509 Main Street, Suite 900
Dallas, Texas 75201-4809

Dear Ms. Tannen:

Staff members of the Arkansas Natural Heritage Commission have reviewed our files for locations within or near the project boundary known to contain significant components of the State's natural diversity. The result of this review are shown in the attached data summary. For understanding the material fully, you may refer to the enclosed legends.

Please note that the pink mucket (Lampsilis orbiculata) has been found in the White River. This species is listed as Endangered by the U.S. Fish and Wildlife Service and consultation with that agency may be required.

Please keep in mind that the project area may contain important natural features of which we are unaware. Likewise, some of the features reported to have occurred historically within the area may exist no longer.

The quantity and quality of the data collected by the Natural Heritage Inventory Program are dependent on the research and observation of many individuals and organizations. In most cases the information is not the result of comprehensive or site-specific field surveys. Many natural areas in Arkansas never have been surveyed thoroughly. Natural Heritage Inventory reports summarize the existing information known to the Program at the time of the request. They should never be regarded as final statements on the elements or areas under consideration. nor should they be substituted for on-site surveys required for environmental assessments. Because our files are updated constantly as additional data are received, you may want to check with us again at a later date.

The importance of the various features on which we keep records varies over a wide range. Some are habitats of animals on the federal list of endangered and threatened species. Some records represent the best known examples of certain types of natural communities. Others locate habitats of plant and animal species that, though very rare in Arkansas, are common elsewhere.

If the information presented here is used in any publication, please cite the Arkansas Natural Heritage Commission as the source.

Thank you for consulting us. It has been a pleasure to work with you on this study.

Sincerely,

Cindy Osborne

Cindy Osborne
Data Manager

Enclosures: Information sheet & Legends
Data Summary Print-out
Invoice & Fee Schedule

ARKANSAS NATURAL HERITAGE COMMISSION
INVENTORY RESEARCH PROGRAM
DEPARTMENT OF ARKANSAS HERITAGE
DATA SUMMARY
KNOWN LOCATIONS OF SPECIAL ELEMENTS
VICINITY OF NORANDAL USA, INC. PLANT NEAR NEWPORT
(ANHC NO. CF.-161)

NAME	T/R/S	T/R/S COMM.	PRE- CISION	LOCATION	LAST ORSER. DATE	FED. STATUS	STATE STATUS	GLOBAL RANK	STATE RANK	ANHC DEC. #
<hr/>										
** USGS TOPOGRAPHIC QUADRANGLE: AUVERGNE 7.5										
<u>MUSTELA FRENATA PRIMULINA. LONG-TAILED WEASEL</u>	T11N/R02W SECT: 05		M		1977	-	SA	65?	S?	003
<u>CAREX HYSTERICINA. PORCUPINE SEDGE</u>	T11N/R02W SECT: 10		M	1 MI. SE OF NEWPORT. HWY. 14 AND VILLAGE CREEK.	1976	-	SP	65	S2S3	001
<u>RALLUS ELEGANS. KING RAIL</u>	T11N/R02W SECT: 10		S	ALONG AR HWY. 14. 1 MILE SE OF NEWPORT. NEAR BRIDGE OVER VILLAGE CREEK.	1975	-	SA	640	S1?	001
** USGS TOPOGRAPHIC QUADRANGLE: JACKSONPORT 7.5										
<u>AMMOCRYPTA CLARA. WESTERN SAND DARTER</u>	T12N/R03W SECT: 20		M	BLACK RIVER. 0.5 MILES ABOVE MOUTH.	1965	-	SA	63	S2?	008
<u>NOTROPIS SABINAE. SABINE SHINER</u>	T12N/R03W SECT: 29		S	CONFLUENCE OF WHITE & BLACK RIVERS. 6 MILES SE OF NEWARK.	1965	-	SA	64	S2?	010
<u>AMMOCRYPTA CLARA. WESTERN SAND DARTER</u>	T12N/R03W SECT: 33		M	<u>WHITE RIVER. 1 MILE BELOW CONFLUENCE WITH BLACK RIVER.</u>	1965	-	SA	63	S2?	009
** USGS TOPOGRAPHIC QUADRANGLE: NEWPORT 7.5										
<u>ANODONTA SUBORBITICULATA. FLAT FLOATER</u>	T11N/R03W SECT: 17 NE4 NW4 SC			BACKWATER OF WILLOW SLOUGH ALONG U.S. HIGHWAY 67 ABOUT 2.5 MILES SOUTH OF JUNCTION WITH ARKANSAS HIGHWAY 14 SOUTHWEST OF NEWPORT.	1983	-	SA	64	S1?	003
** USGS TOPOGRAPHIC QUADRANGLE: NEWPORT 7.5. AUGUSTA NE 7.5										
<u>LAMPSILIS ORBICULATA. PINK MUCKET</u>	T11N/R03W SECT: 32 CENTRUM SC			WHITE RIVER, RIVER MILES 254.3 TO 236.2. NEAR NEWPORT. COLLECT. SITES: RIVER MILES 236.2, 254.3, 254.0, 252.8, 250.0, 245.8, 241.9, 239.2, 236.2.	1986	LE	SA	62	S2	015
** USGS TOPOGRAPHIC QUADRANGLE: TUCKERMAN 7.5										
<u>NOTROPIS MACULATUS. TAILLIGHT SHINER</u>	T12N/R02W SECT: 00		G	VILLAGE CREEK 3.5 MILES SOUTH OF TUCKERMAN.	1974	-	SA	65	S3	010

Cont~~ent~~

Introduction
Method~~ology~~
Accuracy
Definition
Rounding
Average
Related

TEXT

- A.
- B.

DETAILS

- 1.

APPENDIX

- A-1.

for Counties: July 1, 1985—Continued

Estimates are consistent with special censuses since 1980. Corrections to 1980 census counts
 and average population per household)

	Households			Average population per household		Population			
	April 1, 1980 (census)	Change, 1980-85		July 1, 1985 (estimate)	April 1, 1980 (census)	July 1, 1985 (estimate)	April 1, 1980 (census)	Change, 1980-85	
		Number	Percent					Number	Percent
	6,587	200	3.0	3.22	3.25	23,800	22,862	900	3.9
	3,807	-700	-20.1	3.14	3.16	9,100	11,406	-2,300	-20.5
	4,858	900	18.3	2.48	2.69	13,700	12,557	1,200	9.3
	544,759	147,300	27.0	2.58	2.73	1,816,700	1,509,052	307,600	20.4
	21,110	7,200	34.0	2.51	2.63	71,600	55,865	15,700	28.1
	18,301	1,400	7.8	3.58	3.89	70,700	67,629	3,100	4.5
	195,459	35,000	17.9	2.47	2.66	585,000	531,443	53,500	10.1
	28,411	4,700	16.4	2.85	3.08	98,000	90,918	7,100	7.8
	5,999	600	10.0	3.38	3.40	22,400	20,459	1,900	9.4
	26,599	7,500	28.3	2.39	2.50	83,400	68,145	15,300	22.4
	25,190	3,400	13.6	2.87	2.98	84,800	77,997	6,800	8.7
	816,065	60,000	7.3	2.64	2.74	2,360,000	2,286,435	73,000	3.2
	8,909	200	1.8	2.56	2.68	23,500	24,175	-600	-2.7
	9,061	700	7.4	2.71	2.90	26,700	26,538	200	0.6
	11,181	1,500	13.1	2.33	2.43	29,800	27,409	2,400	8.7
	28,622	4,200	14.8	2.59	2.68	86,700	78,115	8,600	11.0
	9,781	1,300	13.1	2.47	2.63	27,700	28,067	-1,700	-6.4
	5,040	-	-0.5	2.62	2.69	13,400	13,803	-400	-3.1
	2,121	100	3.9	2.68	2.76	6,100	6,079	100	0.9
	6,431	900	13.9	2.41	2.51	17,700	16,203	1,500	9.4
	5,993	100	1.1	2.88	2.96	17,500	17,793	-300	-1.6
	8,134	100	1.3	2.53	2.59	22,800	23,326	-500	-2.2
	7,911	100	0.9	2.44	2.58	19,700	20,616	-900	-4.4
	6,405	1,100	17.9	2.52	2.62	19,200	16,909	2,200	13.3
	2,769	100	2.0	2.85	2.82	8,100	7,868	200	3.2
	9,535	500	5.3	2.61	2.69	27,200	26,644	600	2.2
	6,800	100	1.4	2.76	2.83	19,300	19,505	-200	-1.2
	22,334	1,300	5.7	2.57	2.70	63,100	63,239	-100	-0.2
	12,566	2,000	15.9	2.76	2.90	40,600	36,892	3,700	10.1
	15,701	700	4.2	3.05	3.14	50,200	49,499	700	1.4
	6,631	300	5.3	2.90	3.04	20,500	20,434	100	0.5
	3,735	-	0.5	2.74	2.77	10,500	10,515	-100	-0.6
	6,640	-	0.4	2.89	2.95	19,500	19,760	-300	-1.4
	6,200	200	4.0	2.70	2.78	18,200	17,910	200	1.4
	15,489	2,700	17.3	2.64	2.76	51,300	46,192	5,200	11.2
	5,164	500	9.8	2.63	2.74	15,500	14,705	800	5.3
	3,765	200	5.6	2.55	2.62	10,300	9,975	300	3.1
	28,171	3,200	11.2	2.33	2.45	74,600	70,531	4,100	5.8
	4,504	300	7.2	2.73	2.86	13,300	13,008	300	2.0
	11,228	500	4.7	2.66	2.71	31,500	30,744	800	2.6
	8,578	100	0.7	2.67	2.73	23,300	23,635	-300	-1.4
	9,683	500	4.6	2.67	2.75	27,300	26,819	400	1.7
	4,818	100	1.4	2.71	2.73	13,500	13,459	100	0.5
	10,901	700	6.8	2.72	2.72	32,100	30,147	2,000	6.6
	4,284	100	3.0	2.45	2.48	11,000	10,768	200	1.8
	7,786	100	1.6	2.64	2.75	21,100	21,646	-600	-2.6
	30,588	1,100	3.5	2.75	2.87	90,200	90,718	-500	-0.5
	6,395	500	7.2	2.63	2.66	18,400	17,423	1,000	5.8
	3,587	-	-0.9	2.75	2.82	9,900	10,213	-300	-3.2
	6,797	300	5.0	2.52	2.66	18,300	18,447	-200	-1.0
	4,942	400	8.2	2.83	3.11	15,300	15,539	-200	-1.5
	3,918	-100	-2.5	2.92	2.97	13,100	13,369	-200	-1.7

40
100-100000

100
100000

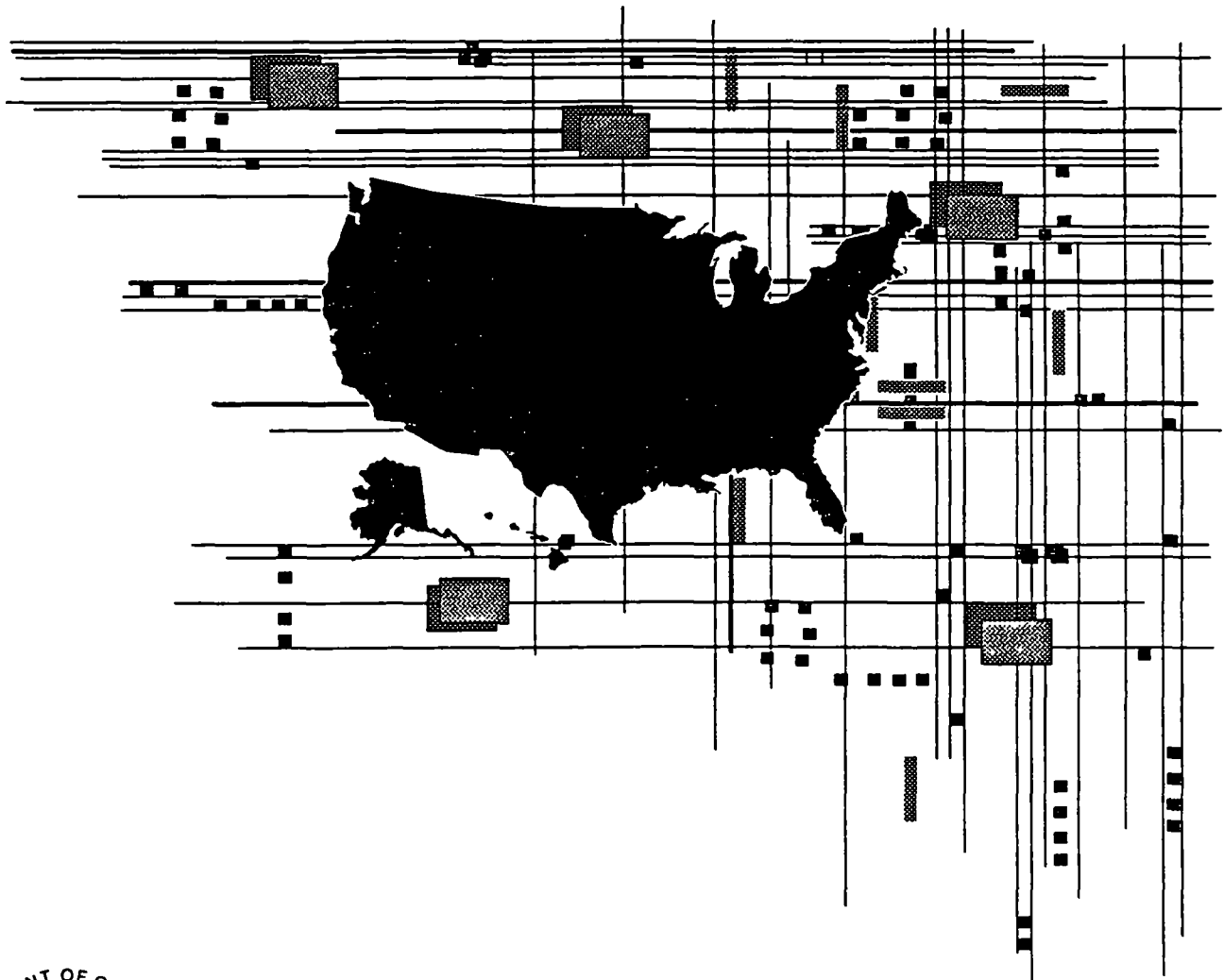
Reference 30

CURRENT POPULATION REPORTS

Special Studies

Series P-23, No. 156

Estimates of Households, for Counties: July 1, 1985



U.S. Department of Commerce
BUREAU OF THE CENSUS

Contents

	Page
Introduction	1
Methodology	1
Accuracy of county household estimates	4
Definitions and explanations	7
Rounding of estimates	7
Average population per household	7
Related reports	7

TEXT TABLES

A. Percent errors in 1980 household estimates for counties, classified by treatment of group quarters population	5
B. Percent errors in 1980 household estimates for counties, classified by type of 1980 age data	6

DETAILED TABLES

1. Estimates of households, for counties: July 1, 1985	9
--	---

APPENDIX TABLE

A-1. Corrections to 1980 census counts of population and housing units, for selected States and counties	69
--	----

Table 1. Estimates of Households, for Counties: July 1, 1985—Continued

(A dash (-) represents zero or rounds to zero. Estimates are consistent with special censuses since 1980. Corrections to 1980 census counts are not included. See text concerning rounding and average population per household)

State and county	Households				Average population per household		Population			
	July 1, 1985 (estimate)	April 1, 1980 (census)	Change, 1980-85		July 1, 1985 (estimate)	April 1, 1980 (census)	July 1, 1985 (estimate)	April 1, 1980 (census)	Change, 1980-85	
			Number	Percent					Number	Percent
Arizona—Continued										
Graham	6,800	6,587	200	3.0	3.22	3.25	23,800	22,862	900	3.9
Greenlee	2,900	3,607	-700	-20.1	3.14	3.16	9,100	11,406	-2,300	-20.5
LaPaz	5,500	4,658	900	18.3	2.48	2.69	13,700	12,557	1,200	9.3
Maricopa	692,100	544,759	147,300	27.0	2.58	2.73	1,816,700	1,509,052	307,600	20.4
Mohave	28,300	21,110	7,200	34.0	2.51	2.63	71,600	55,865	15,700	28.1
Navajo	19,700	18,301	1,400	7.8	3.58	3.69	70,700	67,629	3,100	4.5
Pima	230,500	195,459	35,000	17.9	2.47	2.66	585,000	531,443	53,500	10.1
Pinal	33,100	28,411	4,700	16.4	2.85	3.08	98,000	90,918	7,100	7.8
Santa Cruz	6,600	5,999	600	10.0	3.38	3.40	22,400	20,459	1,900	9.4
Yavapai	34,100	26,599	7,500	28.3	2.39	2.50	83,400	68,145	15,300	22.4
Yuma	28,600	25,190	3,400	13.6	2.87	2.98	84,800	77,997	6,800	8.7
Arkansas	876,000	816,065	60,000	7.3	2.64	2.74	2,360,000	2,286,435	73,000	3.2
Arkansas	9,100	8,909	200	1.8	2.56	2.68	23,500	24,175	-600	-2.7
Ashley	9,700	9,061	700	7.4	2.71	2.90	26,700	26,538	200	0.6
Baxter	12,600	11,181	1,500	13.1	2.33	2.43	29,800	27,409	2,400	8.7
Benton	32,900	28,622	4,200	14.8	2.59	2.68	86,700	78,115	8,600	11.0
Boone	11,100	9,781	1,300	13.1	2.47	2.63	27,700	26,067	1,700	6.4
Bradley	5,000	5,040	-	-0.5	2.62	2.69	13,400	13,803	-400	-3.1
Calhoun	2,200	2,121	100	3.9	2.68	2.76	6,100	6,079	100	0.9
Carroll	7,300	6,431	900	13.9	2.41	2.51	17,700	16,203	1,500	9.4
Chicot	6,100	5,993	100	1.1	2.88	2.96	17,500	17,793	-300	-1.6
Clark	8,200	8,134	100	1.3	2.53	2.59	22,800	23,326	-500	-2.2
Clay	8,000	7,911	100	0.9	2.44	2.58	19,700	20,616	-900	-4.4
Cleburne	7,600	6,405	1,100	17.9	2.52	2.62	19,200	16,909	2,200	13.3
Cleveland	2,800	2,769	100	2.0	2.85	2.82	8,100	7,868	200	3.2
Columbia	10,000	9,535	500	5.3	2.61	2.69	27,200	26,644	600	2.2
Conway	6,900	6,800	100	1.4	2.76	2.83	19,300	19,505	-200	-1.2
Craighead	23,600	22,334	1,300	5.7	2.57	2.70	63,100	63,239	-100	-0.2
Crawford	14,600	12,566	2,000	15.9	2.76	2.90	40,600	36,892	3,700	10.1
Crittenden	16,400	15,701	700	4.2	3.05	3.14	50,200	49,499	700	1.4
Cross	7,000	6,631	300	5.3	2.90	3.04	20,500	20,434	100	0.5
Dallas	3,800	3,735	-	0.5	2.74	2.77	10,500	10,515	-100	-0.6
Desha	6,700	6,640	-	0.4	2.89	2.95	19,500	19,760	-300	-1.4
Drew	6,400	6,200	200	4.0	2.70	2.78	18,200	17,910	200	1.4
Faulkner	18,200	15,489	2,700	17.3	2.64	2.76	51,300	46,192	5,200	11.2
Franklin	5,700	5,164	500	9.8	2.63	2.74	15,500	14,705	800	5.3
Fulton	4,000	3,765	200	5.6	2.55	2.62	10,300	9,975	300	3.1
Garland	31,300	28,171	3,200	11.2	2.33	2.45	74,600	70,531	4,100	5.8
Grant	4,800	4,504	300	7.2	2.73	2.86	13,300	13,008	300	2.0
Greene	11,800	11,228	500	4.7	2.66	2.71	31,500	30,744	800	2.6
Hempstead	8,600	8,578	100	0.7	2.67	2.73	23,300	23,635	-300	-1.4
Hot Spring	10,100	9,683	500	4.6	2.67	2.75	27,300	26,819	400	1.7
Howard	4,900	4,818	100	1.4	2.71	2.73	13,500	13,459	100	0.5
Independence	11,600	10,901	700	6.8	2.72	2.72	32,100	30,147	2,000	6.6
Izard	4,400	4,284	100	3.0	2.45	2.48	11,000	10,768	200	1.8
Jackson	7,900	7,786	100	1.6	2.64	2.75	21,100	21,646	-600	-2.6
Jefferson	31,700	30,588	1,100	3.5	2.75	2.87	90,200	90,718	-500	-0.5
Johnson	6,900	6,395	500	7.2	2.63	2.66	18,400	17,423	1,000	5.8
Lafayette	3,600	3,587	-	-0.9	2.75	2.82	9,900	10,213	-300	-3.2
Lawrence	7,100	6,797	300	5.0	2.52	2.66	18,300	18,447	-200	-1.0
Lee	5,300	4,942	400	8.2	2.83	3.11	15,300	15,539	-200	-1.5
Lincoln	3,800	3,918	-100	-2.5	2.92	2.97	13,100	13,369	-200	-1.7

RECORD OF COMMUNICATION

TYPE: Phone Call

DATE: June 21, 1990

TIME: 3:15 pm

TO: City Clerk's Office,
Newport, AR
(501)523-2167

FROM: Trudy K. Tannen
ICF Technology
(214)744-1641

SUBJECT: Population of Newport

SUMMARY OF COMMUNICATION

The population of Newport, Arkansas is 8,338 according to the City Clerk's Office.